

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Callie Shosho Examiner #: 75636 Date: 2/8/02
 Art Unit: 1714 Phone Number 305-0208 Serial Number: 291740, 927
 Mail Box and Bldg/Room Location: CP3-3D35 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Coloring Composition, Ink for Ink Jet and Ink Jet
Recording Method
 Inventors (please provide full names): Makoto Ishizuka, Keizo Kikawa,
Yasuhiko Yamashita

Earliest Priority Filing Date: 12/22/99

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please find ink composition comprising the
 dye in claim 2 and ink composition comprising
 the dy. of claim 3

Thanks

STAFF USE ONLY

		Type of Search	Vendors and cost where applicable
Searcher: <u>ES</u>	NA Sequence (#)	STN	<u>\$187.37</u>
Searcher Phone #:	AA Sequence (#)	Dialog	
Searcher Location:	Structure (#)	<u>(1) (abstract)</u> Questel/Orbit	
Date Searcher Picked Up:	Bibliographic	<u>(and)</u> DLLink	
Date Completed: <u>2-21-02</u>	Litigation	Lexis/Nexis	
Searcher Prep & Review Time: <u>20</u>	Fulltext	Sequence Systems	
Clerical Prep Time:	Patent Family	WWW/Internet	
Online Time: <u>50</u>	Other	Other (specify)	

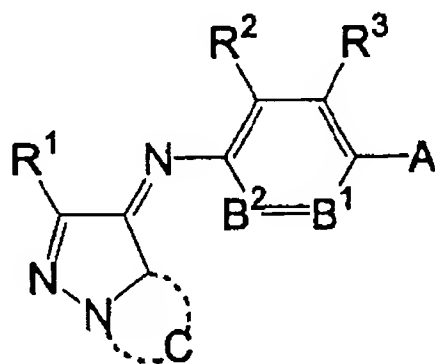
WHAT IS CLAIMED IS:

1. An ink for ink-jet comprising:

a coloring composition containing coloring particulates dispersed in a water based medium, the coloring particulates containing an oil soluble dye and an oil soluble polymer; and wherein the coloring composition has wavelength of maximum absorption ($\lambda_{\max}(\text{nm})$) in the wavelength range from 510 to 560 nm and when the absorbance at the wavelength of maximum absorption ($\lambda_{\max}(\text{nm})$) is regarded as 1, the absorbance at a wavelength ($\lambda_{\max} + 75 (\text{nm})$) is no more than 0.2 and the absorbance at a wavelength ($\lambda_{\max} - 75 (\text{nm})$) is no more than 0.4.

2. The ink for ink-jet according to claim 1, wherein the oil soluble dye is represented by the formula (I):

Formula (I)



wherein R¹ represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, -OR¹¹, -SR¹², -

CO_2R^{13} , $-\text{OCOR}^{14}$, $-\text{NR}^{15}\text{R}^{16}$, $-\text{CONR}^{17}\text{R}^{18}$, $-\text{SO}_2\text{R}^{19}$, $-\text{SO}_2\text{NR}^{20}\text{R}^{21}$, $-\text{NR}^{22}\text{CONR}^{23}\text{R}^{24}$, $-\text{NR}^{25}\text{CO}_2\text{R}^{26}$, $-\text{COR}^{27}$, $-\text{NR}^{28}\text{COR}^{29}$, or $-\text{NR}^{30}\text{SO}_2\text{R}^{31}$; and R^{11} , R^{12} , R^{13} , R^{14} , R^{15} , R^{16} , R^{17} , R^{18} , R^{19} , R^{20} , R^{21} , R^{22} , R^{23} , R^{24} , R^{25} , R^{26} , R^{27} , R^{28} , R^{29} , R^{30} and R^{31} each independently represents a hydrogen atom, an aliphatic group, or an aromatic group;

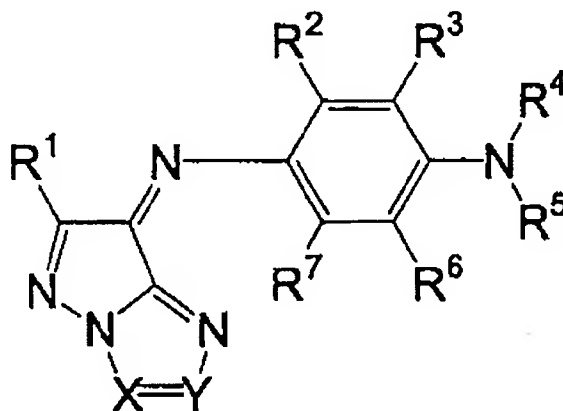
A represents $-\text{NR}^4\text{R}^5$ or a hydroxyl group; R^4 and R^5 each independently represents a hydrogen atom, an aliphatic group, an aromatic group or a heterocyclic group; B^1 represents $=\text{C}(\text{R}^6)-$ or $=\text{N}-$; B^2 represents $-\text{C}(\text{R}^7)=$ or $-\text{N}=$; R^2 , R^3 , R^6 and R^7 each independently represents a hydrogen atom, a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, $-\text{OR}^{51}$, $-\text{SR}^{52}$, $-\text{CO}_2\text{R}^{53}$, $-\text{OCOR}^{54}$, $-\text{NR}^{55}\text{R}^{56}$, $-\text{CONR}^{57}\text{R}^{58}$, $-\text{SO}_2\text{R}^{59}$, $\text{SO}_2\text{NR}^{60}\text{R}^{61}$, $-\text{NR}^{62}\text{CONR}^{63}\text{R}^{64}$, $-\text{NR}^{65}\text{CO}_2\text{R}^{66}$, $-\text{COR}^{67}$, $-\text{NR}^{68}\text{COR}^{69}$ or $-\text{NR}^{70}\text{SO}_2\text{R}^{71}$; R^{51} , R^{52} , R^{53} , R^{54} , R^{55} , R^{56} , R^{57} , R^{58} , R^{59} , R^{60} , R^{61} , R^{62} , R^{63} , R^{64} , R^{65} , R^{66} , R^{67} , R^{68} , R^{69} , R^{70} and R^{71} each independently represents a hydrogen atom, an aliphatic group or an aromatic group; R^2 and R^3 , R^3 and R^4 , R^4 and R^5 , R^5 and R^6 , or R^6 and R^7 may be bonded to each other to form a ring;

C forms a 5- or 6-membered nitrogen-containing heterocycle, the heterocycle being substitutable with at least one substituent selected from an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, $-\text{OR}^{81}$, $-\text{SR}^{82}$, $-\text{CO}_2\text{R}^{83}$, $-\text{OCOR}^{84}$, $-\text{NR}^{85}\text{R}^{86}$, $-\text{CONR}^{87}\text{R}^{88}$, $-\text{SO}_2\text{R}^{89}$, $\text{SO}_2\text{NR}^{90}\text{R}^{91}$, $-\text{NR}^{92}\text{CONR}^{93}\text{R}^{94}$, $-\text{NR}^{95}\text{CO}_2\text{R}^{96}$, $-\text{COR}^{97}$, $-\text{NR}^{98}\text{COR}^{99}$, and $-\text{NR}^{100}\text{SO}_2\text{R}^{101}$; the substituent(s) may further

have one or more substituents; the nitrogen-containing heterocycle may be combined with another ring to form a condensed ring; and $R^{81}, R^{82}, R^{83}, R^{84}, R^{85}, R^{86}, R^{87}, R^{88}, R^{89}, R^{90}, R^{91}, R^{92}, R^{93}, R^{94}, R^{95}, R^{96}, R^{97}, R^{98}, R^{99}, R^{100}$ and R^{101} each independently represents a hydrogen atom, an aliphatic group or an aromatic group.

3. The ink for ink-jet according to claim 1, wherein the oil soluble dye is represented by the following formula (II):

Formula (II)



wherein R^1 represents a hydrogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, $-OR^{11}$, $-SR^{12}$, $-CO_2R^{13}$, $-OCOR^{14}$, $-NR^{15}R^{16}$, $-CONR^{17}R^{18}$, $-SO_2R^{19}$, $-SO_2NR^{20}R^{21}$, $-NR^{22}CONR^{23}R^{24}$, $-NR^{25}CO_2R^{26}$, $-COR^{27}$, $-NR^{28}COR^{29}$, or $-NR^{30}SO_2R^{31}$; $R^{11}, R^{12}, R^{13}, R^{14}, R^{15}, R^{16}, R^{17}, R^{18}, R^{19}, R^{20}, R^{21}, R^{22}, R^{23}, R^{24}, R^{25}, R^{26}, R^{27}, R^{28}, R^{29}, R^{30}$ and R^{31} each independently represents a hydrogen atom, an aliphatic group, or an aromatic group;

R^2, R^3, R^6 and R^7 each independently represents a hydrogen

atom, a halogen atom, an aliphatic group, an aromatic group, a heterocyclic group, a cyano group, $-OR^{51}$, $-SR^{52}$, $-CO_2R^{53}$, $-OCOR^{54}$, $-NR^{55}R^{56}$, $-CONR^{57}R^{58}$, $-SO_2R^{59}$, $SO_2NR^{60}R^{61}$, $-NR^{62}CONR^{63}R^{64}$, $-NR^{65}CO_2R^{66}$, $-COR^{67}$, $-NR^{68}COR^{69}$ or $-NR^{70}SO_2R^{71}$; R^{51} , R^{52} , R^{53} , R^{54} , R^{55} , R^{56} , R^{57} , R^{58} , R^{59} , R^{60} , R^{61} , R^{62} , R^{63} , R^{64} , R^{65} , R^{66} , R^{67} , R^{68} , R^{69} , R^{70} and R^{71} each independently represents a hydrogen atom, an aliphatic group or an aromatic group;

R^4 and R^5 each independently represents a hydrogen atom, an aliphatic group, an aromatic group, or a heterocyclic group; and

X and Y each represents $-C(R^8)=$ or $-N=$; R^8 is a hydrogen atom, an aliphatic group or an aromatic group; either one of X and Y necessarily represents $-N=$, and X and Y do not represent $-N=$ at the same time.

4. The ink for ink-jet according to claim 3, wherein X represents $-N=$, and Y represents $-C(R^8)=$.

5. The ink for ink-jet according to claim 1, wherein in the coloring particulates, the oil soluble dye dispersed in the oil soluble polymer.

6. The ink for ink-jet according to claim 1, wherein the coloring particulates are obtained by emulsifying and making into fine particles an organic solvent which includes the oil soluble polymer and the oil soluble dye, by one of adding water to the organic solvent, and adding the organic solvent into water.

7. The ink for ink-jet according to claim 1, wherein the oil

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ACT SHO927/Q

L1

STR

L2

STR L1

FILE 'REGISTRY' ENTERED AT 11:38:37 ON 21 FEB 2002

L3

50 S L2

L4

1270 S L2 FUL

DEL SHO927/Q

SAV L4 SHO927/A

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L5

STR L3

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L6

42 S L5 SSS SAM SUB=L4

L7

839 S L5 SSS FUL SUB=L4

SAV L7 SHO927B/A

FILE 'HCA' ENTERED AT 11:50:57 ON 21 FEB 2002

L8

288 S L4

L9

238 S L7

L10

12114 S INKJET? OR (INK? OR PRINT? OR THINK?) (2A) (JET OR JETS O

L11

29 S L10 AND L9

L12

40 S L10 AND L8

L13

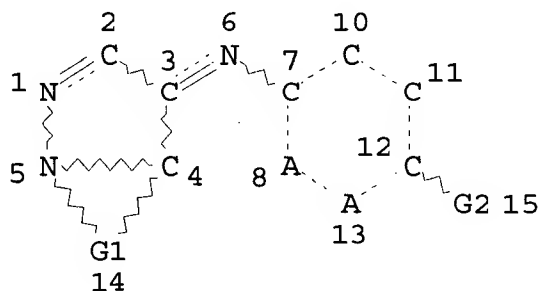
11 S L12 NOT L11

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=> d 17 que stat

L2

STR



N@19

REP G1=(3-4) A

VAR G2=OH/19

NODE ATTRIBUTES:

NSPEC IS RC AT 19

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

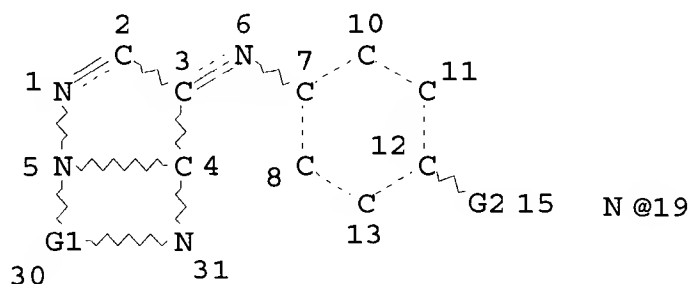
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NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE

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L5 STR



VAR G1=20-5 21-31/23-5 24-31/24-5 23-31

VAR G2=OH/19

NODE ATTRIBUTES:

NSPEC IS RC AT 19

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE

L7 839 SEA FILE=REGISTRY SUB=L4 SSS FUL L5

100.0% PROCESSED 958 ITERATIONS

839 ANSWERS

SEARCH TIME: 00.00.03

=> file hca

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=> d l11 1-29 ibib abs hitstr hitind

L11 ANSWER 1 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 136:120020 HCA

TITLE: Manufacture of thermal ink-jet
inks and printing process
therewith

INVENTOR(S): Arakawa, Jun

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

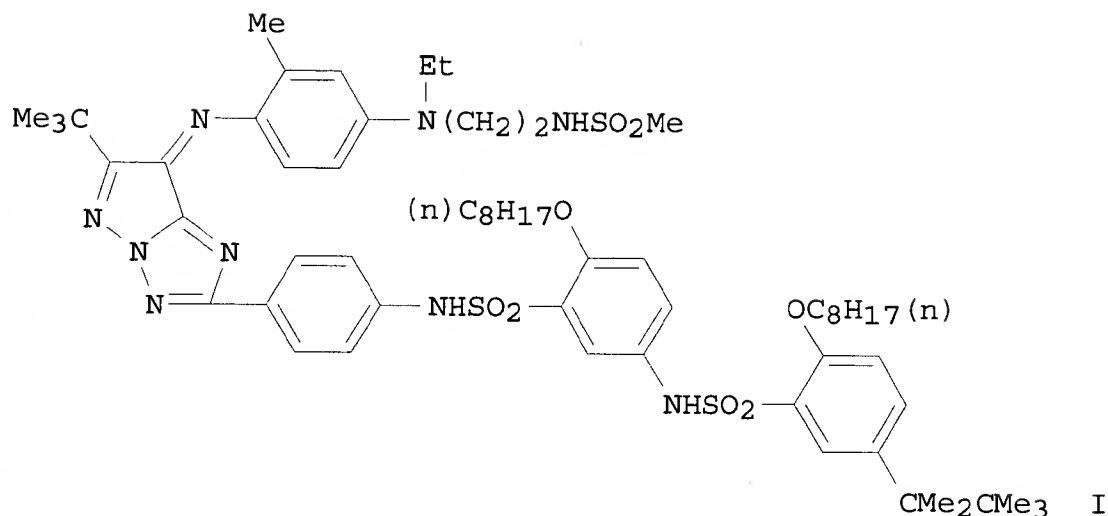
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2002020657	A2	20020123	JP 2000-200780	20000703

GI



AB Title inks, useful in high-speed printing process and resulting prints with durable properties, are prepd. by adding low b.p. (e.g., <150.degree.) org. solvents into high b.p. org. solvent-dissolved oil dyes, then emulsion dispersing in aq. media, and removing the low. b.p. org. solvents. Stirring water with a mixt. of I 6, Na dioctyl sulfosuccinate 5, tritolyl phosphate 6, and tris(2,4,4-trimethylpentyl) phosphate 10 g and 50 mL EtOAc, emulsifying at 60 Mpa, evapg. EtOAc, adding water, glycerol, diethylene glycol, and a surfactant gave an ink with vol-av. diam. of 58 nm and showing good storage stability at 60.degree. for 1 wk, no clogging until >500 mL, and color concn. decrease 2% after soaking in water for 1 min.

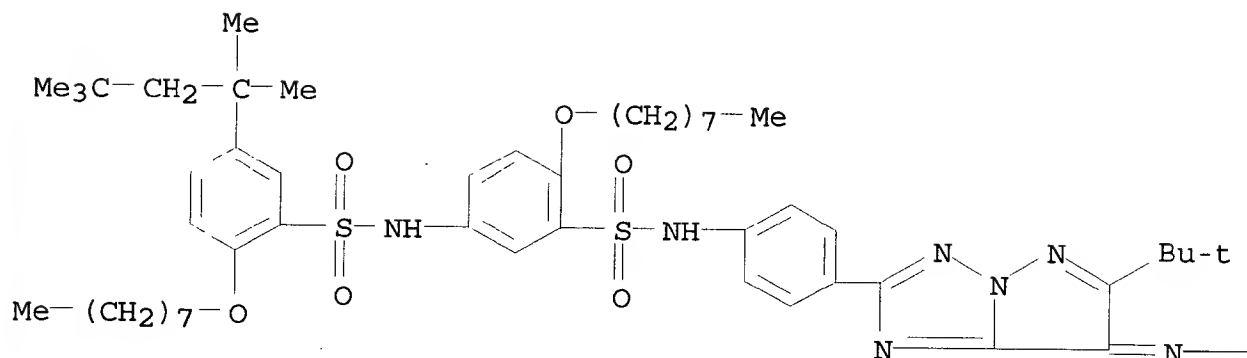
IT 358342-91-3
(manuf. of thermal aq. ink-jet inks

involving addn. of low and high b.p. org. solvents for anticlogging and storage stability)

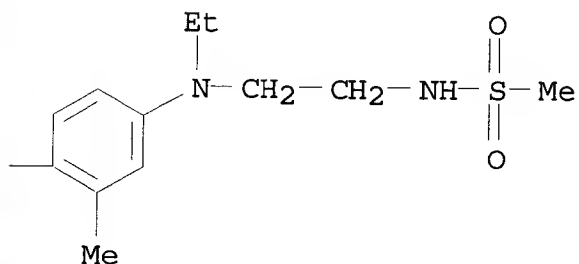
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
(CA INDEX NAME)

PAGE 1-A



PAGE 1-B

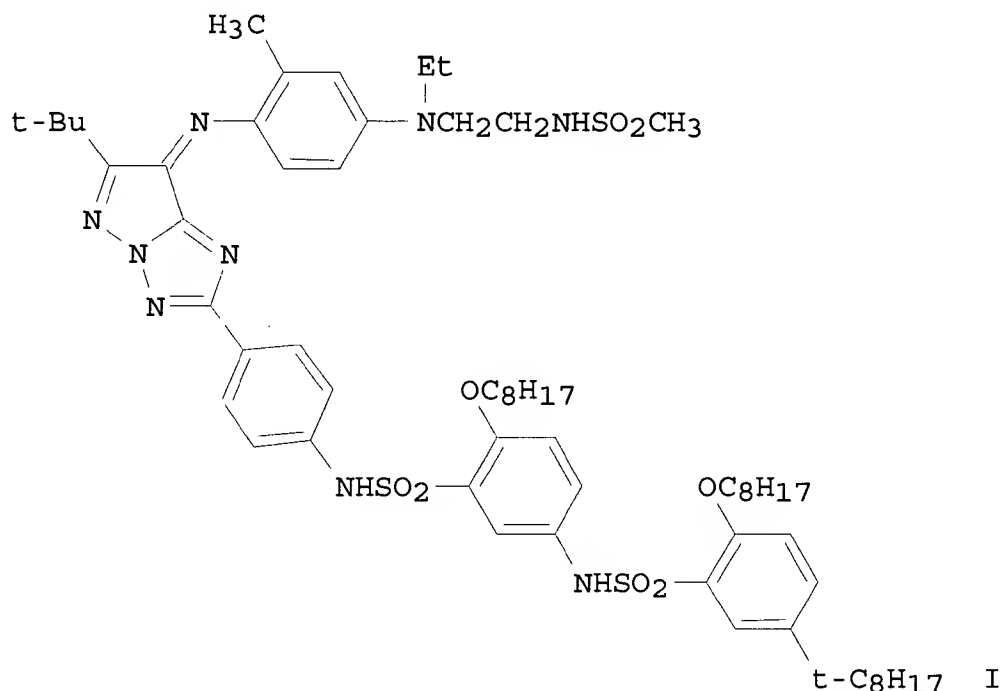


- IC ICM C09D011-00
ICS B41J002-01; B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
IT **Inks**
(**jet-printing**; manuf. of thermal aq.
ink-jet inks involving addn. of low
and high b.p. org. solvents for anticlogging and storage
stability)
IT Emulsification
(manuf. of thermal aq. **ink-jet inks**
involving addn. of low and high b.p. org. solvents for
anticlogging and storage stability)
IT Dyes
(oil; manuf. of thermal aq. **ink-jet**
inks involving addn. of low and high b.p. org. solvents
for anticlogging and storage stability)

IT Solvents
 (org.; manuf. of thermal aq. **ink-jet**
 inks involving addn. of low and high b.p. org. solvents
 for anticlogging and storage stability)
IT 141-78-6, Ethyl acetate, uses 1330-78-5, Tritolyl phosphate
129877-64-1
 (manuf. of thermal aq. **ink-jet inks**
 involving addn. of low and high b.p. org. solvents for
 anticlogging and storage stability)
IT 118150-13-3 346709-26-0 **358342-91-3**
 (manuf. of thermal aq. **ink-jet inks**
 involving addn. of low and high b.p. org. solvents for
 anticlogging and storage stability)

L11 ANSWER 2 OF 29 HCA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 136:21064 HCA
TITLE: Ink composition and **ink jet**
recording technique
INVENTOR(S): Naruse, Hideaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001342387	A2	20011214	JP 2000-320683	20001020
PRIORITY APPLN. INFO.:			JP 2000-95681	A 20000330
OTHER SOURCE(S):	MARPAT 136:21064			
GI				



AB The water dispersion ink with good picture quality and waterproofing comprises R₁R₂R₃N, R₄R₅S:(O)_n, or R₆R₇R₈O(O)_m, which is dissolved in aq. emulsions contg. org. solvents having b.p. .gtoreq.150.degree. and a dye, wherein R₂-R₈ are aliph. groups, etc., m, n=1 or 2. Thus, a light magenta ink set from dye I was mixed with (CH₃)₂N(CH₃)N(CH₂)₄OC₆H₃(t-C₅H₁₁)₂ to give an ink show good printing, drying and water-resistance properties.

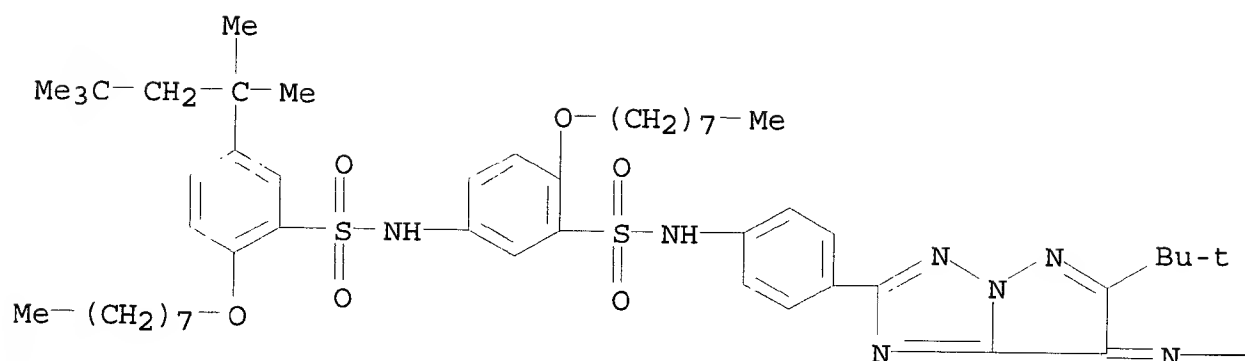
IT 358342-86-6 358342-91-3 358638-61-6
358638-71-8 358638-76-3 362497-25-4
362497-26-5

(ink compn. for ink jet recording)

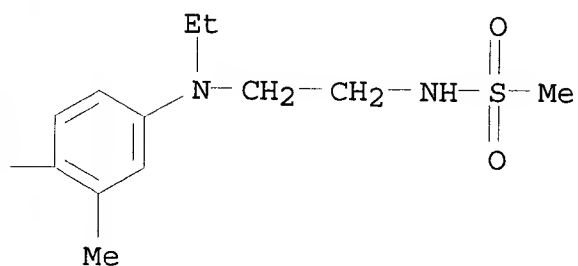
RN 358342-86-6 HCA

CN Benzenesulfonamide, N,N'-[5-[7-[[4-[butyl(2-cyanoethyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)

PAGE 1-A

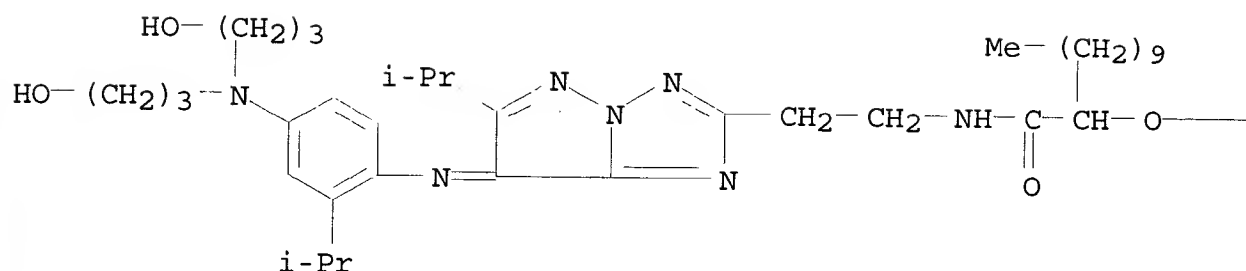


PAGE 1-B

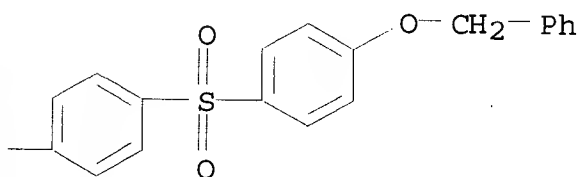


RN 358638-61-6 HCA
 CN Dodecanamide, N-[2-[7-[[4-[bis(3-hydroxypropyl)amino]-2-(1-methylethyl)phenyl]imino]-6-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]ethyl]-2-[4-[[4-(phenylmethoxy)phenyl]sulfonyl]phenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A

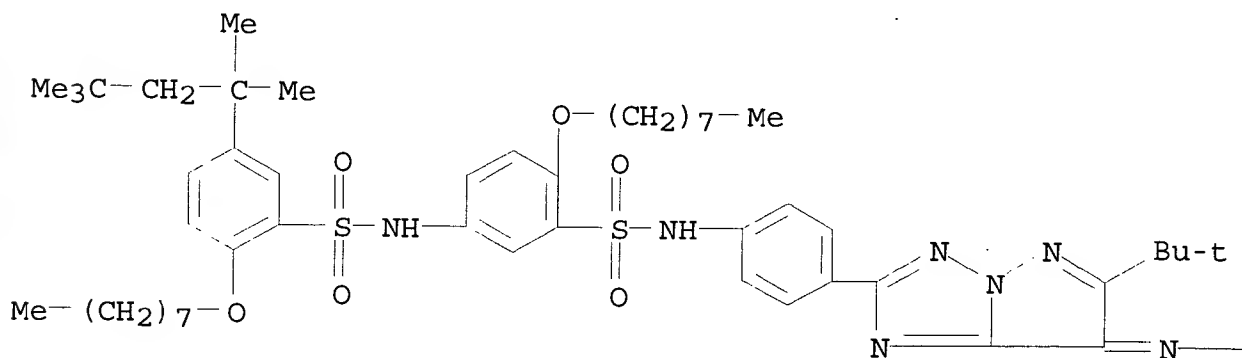


PAGE 1-B

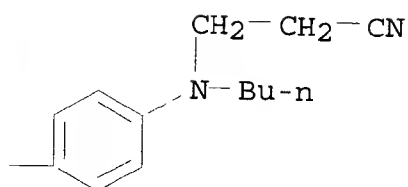


RN 358638-71-8 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[7-[[4-[butyl(2-cyanoethyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

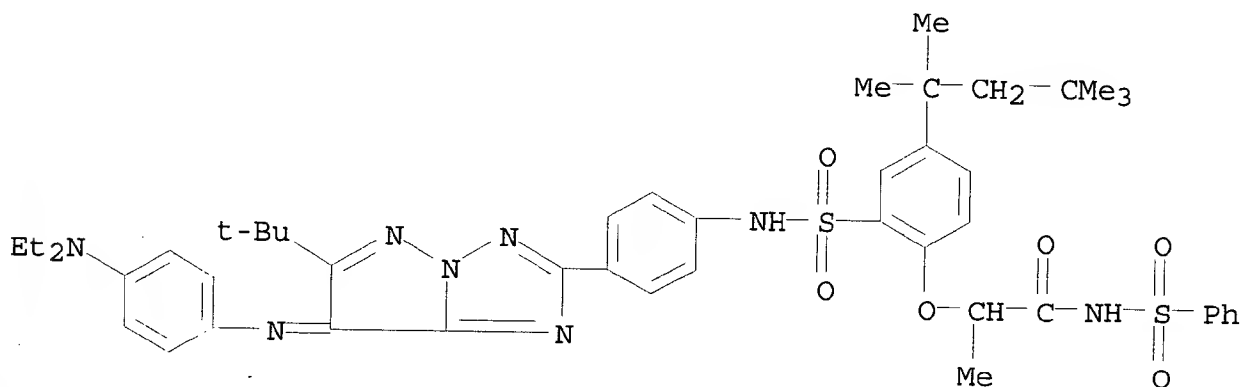
PAGE 1-A



PAGE 1-B



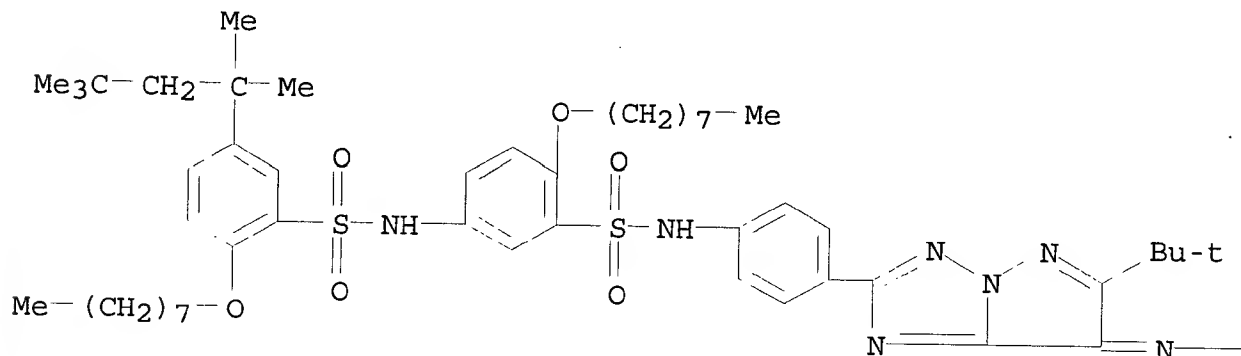
RN 358638-76-3 HCA
 CN Propanamide, 2-[2-[[[4-[7-[[4-(diethylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(1,1,3,3-tetramethylbutyl)phenoxy]-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



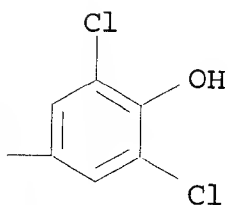
RN 362497-25-4 HCA
 CN Benzenesulfonamide, N,N'-[5-[7-[[4-[bis(2-cyanoethyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

RN 362497-26-5 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C09D011-00
 ICS B41J002-01; B41M005-00; C09B053-00; C09B055-00
 CC 42-12 (Coatings, Inks, and Related Products)
 ST **ink jet** recording nitrogen sulfur phosphorus
 compd contg
 IT **Inks**
 (jet-printing; ink compn. for
 ink jet recording)
 IT 1116-76-3 1541-81-7 31570-04-4 56525-25-8 70806-79-0
 71119-22-7 116090-11-0 116624-56-7 118150-13-3 118150-18-8
 125051-31-2 131691-73-1 141750-73-4 147495-82-7 346709-26-0
 358342-86-6 358342-91-3 358638-61-6
 358638-71-8 358638-76-3 362497-25-4

362497-26-5 369595-79-9 378249-59-3 378786-58-4
 378786-59-5 378786-60-8 378786-61-9 378786-62-0 378786-63-1
 378786-64-2
 (ink compn. for ink jet recording)

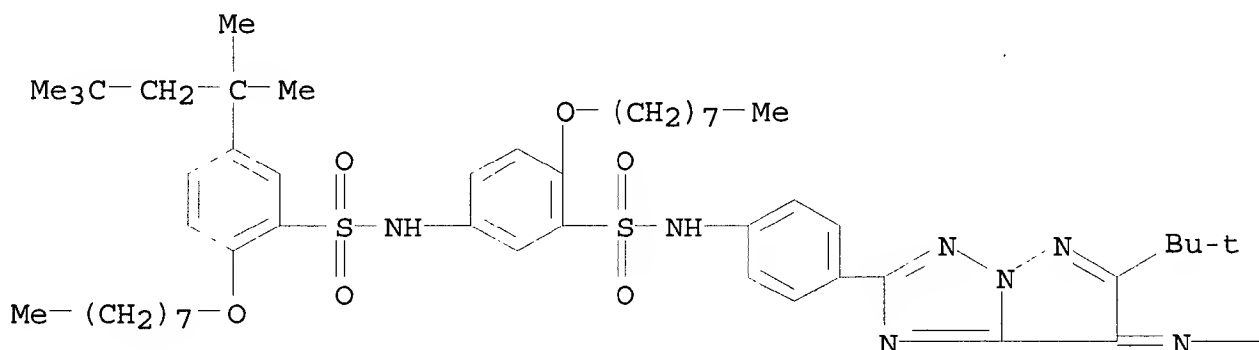
L11 ANSWER 3 OF 29 HCA COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 136:21063 HCA
 TITLE: Ink jet recording
 composition containing cycloamine compound
 INVENTOR(S): Naruse, Hideaki; Seto, Nobuo
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001342386	A2	20011214	JP 2000-309682	20001010
PRIORITY APPLN. INFO.:			JP 2000-95490	A 20000330
OTHER SOURCE(S):	MARPAT 136:21063			
GI				

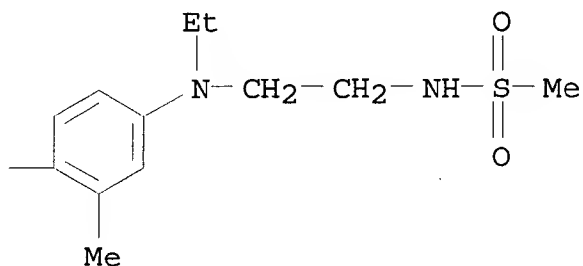
* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title ink compn. having good picture quality, water resistance and
 image fixation comprises a dye dissolved in a high-b.p. solvent and
 dispersed in water, and a compd. I. Thus an ink made from dye II
 and compd. III showed good printing property, and water resistance.
 IT 358342-91-3 358638-61-6
 (ink jet recording compn. contg. cycloamine
 compd.)
 RN 358342-91-3 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-
 [(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-
 pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-
 (octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
 (CA INDEX NAME)

PAGE 1-A

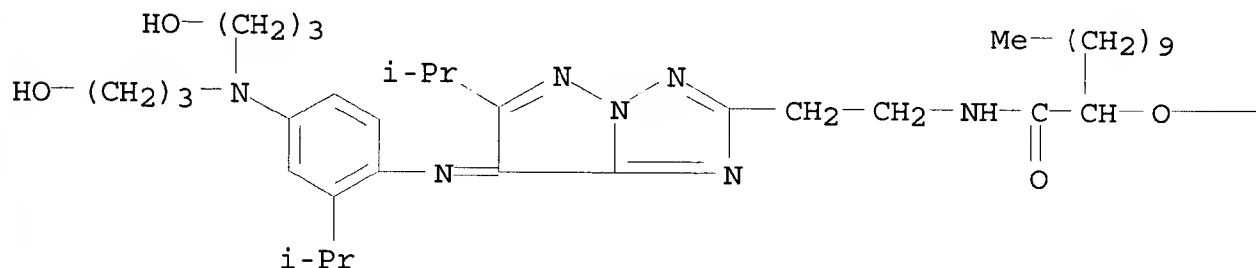


PAGE 1-B

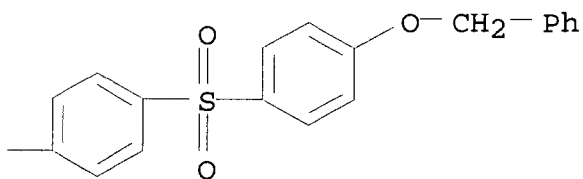


RN 358638-61-6 HCA
 CN Dodecanamide, N-[2-[7-[[4-[bis(3-hydroxypropyl)amino]-2-(1-methylethyl)phenyl]imino]-6-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]ethyl]-2-[4-[[4-(phenylmethoxy)phenyl]sulfonyl]phenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C09D011-00
 ICS B41J002-01; B41M005-00; C09B053-00; C09B055-00
 CC 42-12 (Coatings, Inks, and Related Products)
 ST **ink jet** recording compn cycloamine compd
 IT 2915-93-7 3225-26-1 7335-03-7 28093-25-6 43224-78-8
 70806-79-0 118150-13-3 118150-18-8 133467-41-1 150441-76-2
 346709-26-0 **358342-91-3 358638-61-6**
 369595-79-9 378249-59-3 379265-84-6 379265-85-7 379265-86-8
 379265-87-9
 (**ink jet** recording compn. contg. cycloamine
 compd.)

L11 ANSWER 4 OF 29 HCA COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 136:21062 HCA
 TITLE: Ink composition for **ink jet**
 recording
 INVENTOR(S): Yamada, Masato; Mikoshiba, Takashi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001342385 A2 20011214
 PRIORITY APPLN. INFO.:
 GI

JP 2000-251174 20000822
 JP 2000-95680 A 20000330

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title ink having good printing property, discharge stability, water and light resistance comprises a dye which is dissolved in an org. solvent (b.p. .gtoreq.150.degree.) and emulsified, and a substituted benzene R1XR2R3R4R5R6C wherein R1-R6 are H or org. substituents, and X is O, S, or NR. Thus, an ink made from dye I and claimed compd. II showed good printing property, drying, and water resistance.

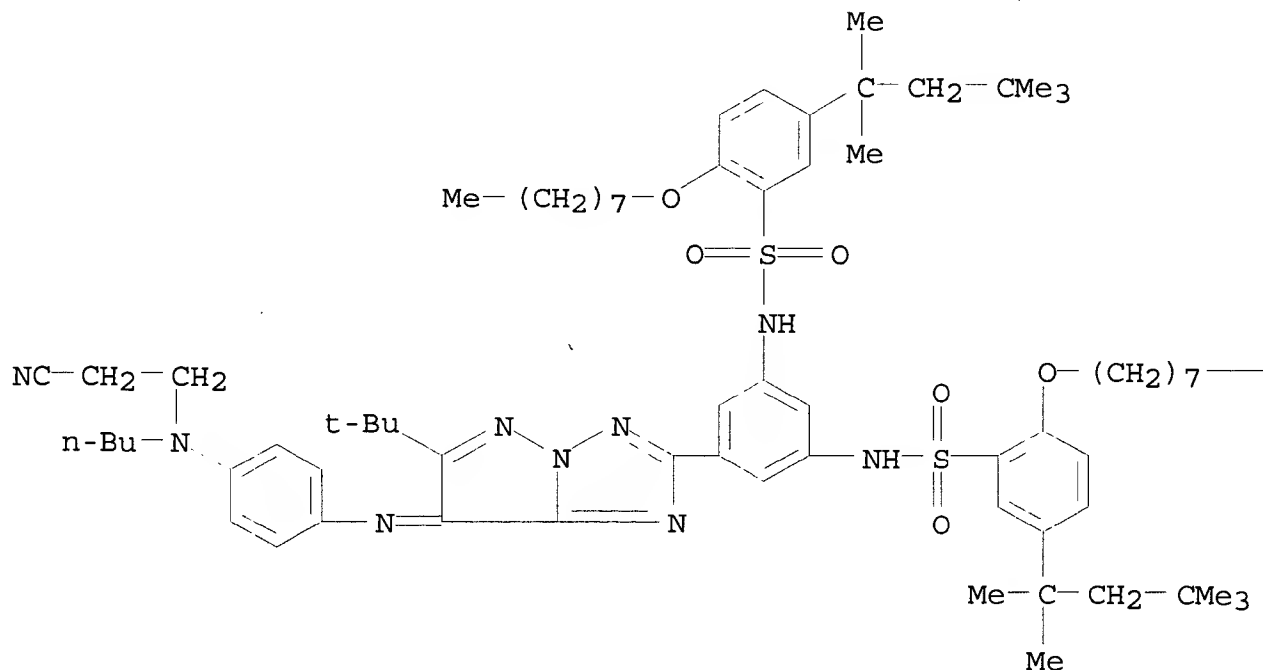
IT 358342-86-6 358342-91-3 358638-61-6
 358638-71-8 358638-76-3 362497-25-4
 362497-26-5

(ink compn. for ink jet recording)

RN 358342-86-6 HCA

CN Benzenesulfonamide, N,N'-[5-[7-[[4-[butyl(2-cyanoethyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

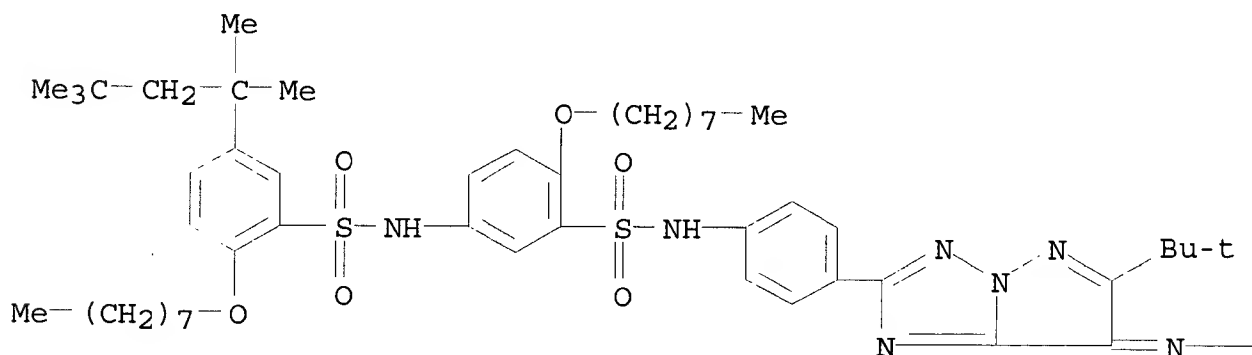


PAGE 1-B

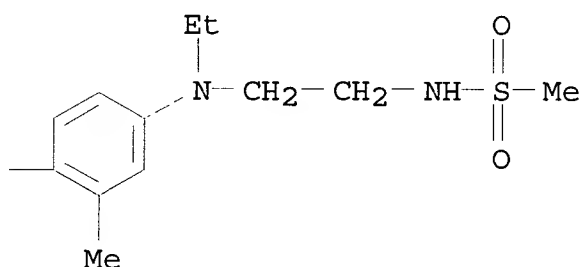
— Me

RN 358342-91-3 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
 (CA INDEX NAME)

PAGE 1-A

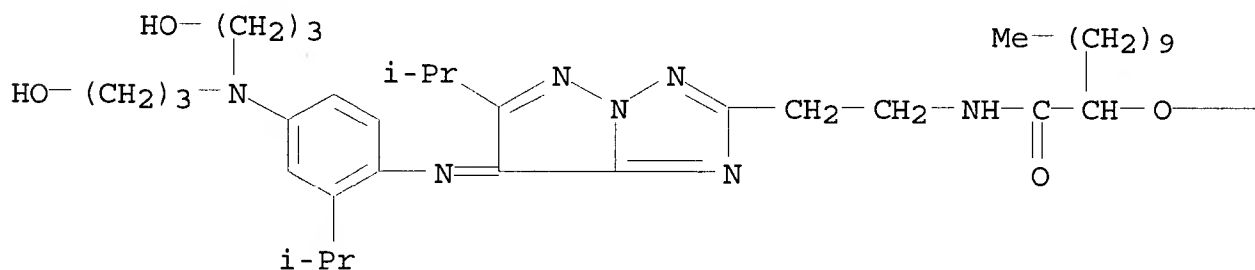


PAGE 1-B

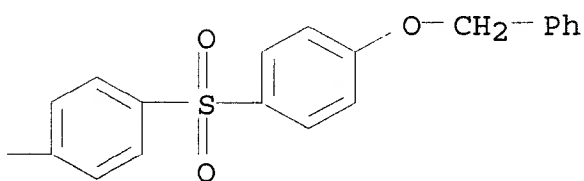


RN 358638-61-6 HCA
 CN Dodecanamide, N-[2-[7-[[4-[bis(3-hydroxypropyl)amino]-2-(1-methylethyl)phenyl]imino]-6-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]ethyl]-2-[4-[[4-(phenylmethoxy)phenyl]sulfonyl]phenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A



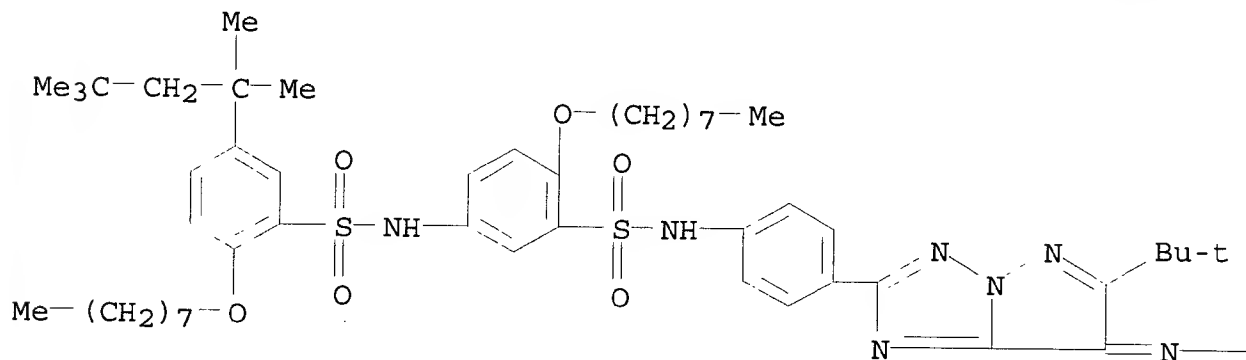
PAGE 1-B



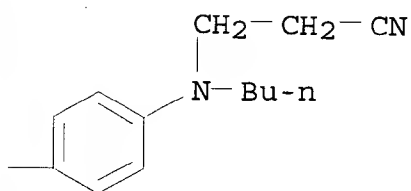
RN 358638-71-8 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[7-[[4-[butyl(2-cyanoethyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-

b) [1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

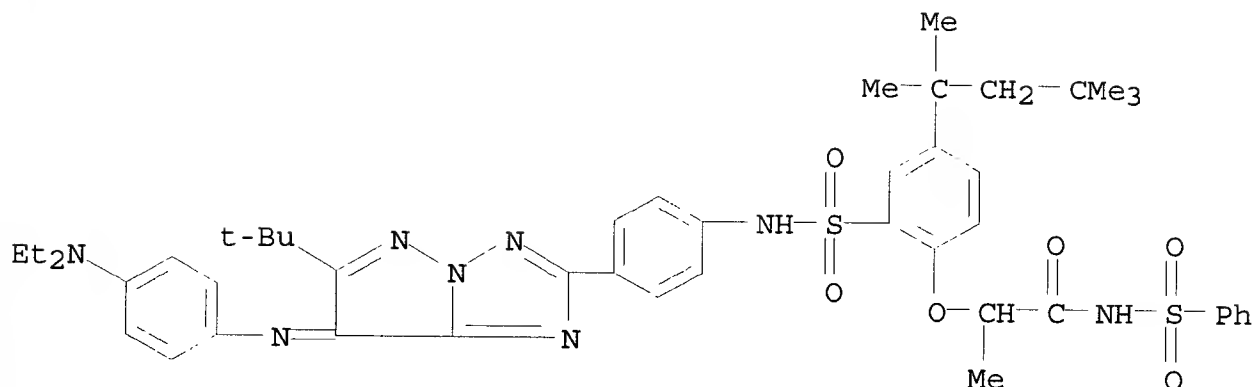
PAGE 1-A



PAGE 1-B



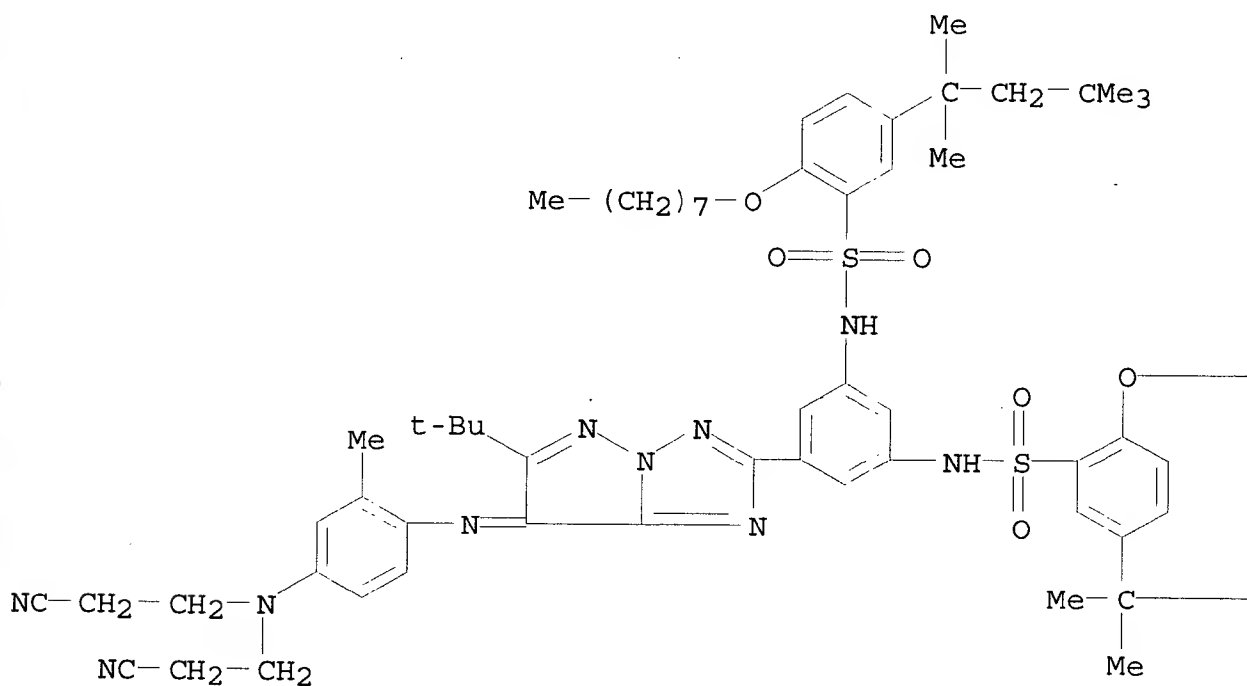
RN 358638-76-3 HCA
 CN Propanamide, 2-[2-[[[4-[7-[[4-(diethylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(1,1,3,3-tetramethylbutyl)phenoxy]-N-(phenylsulfonyl)- (9CI) (CA INDEX NAME)



RN 362497-25-4 HCA

CN Benzenesulfonamide, N,N'-[5-[7-[[4-[bis(2-cyanoethyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)

PAGE 1-A



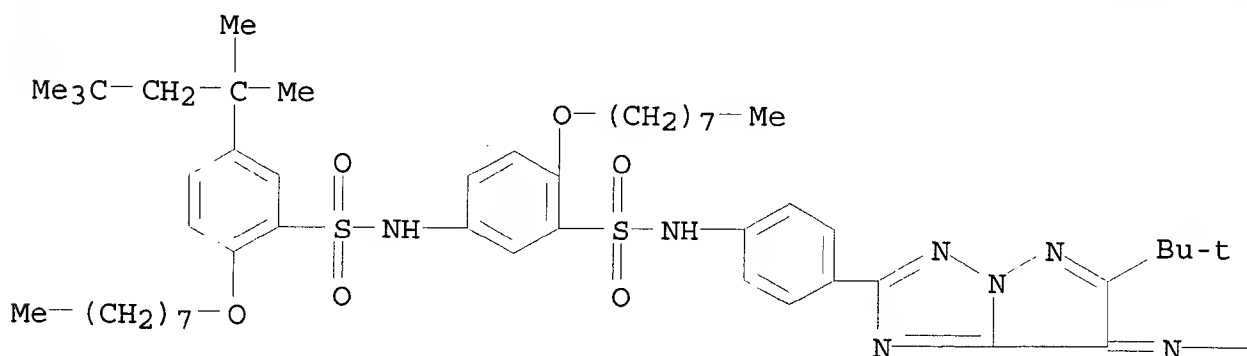
PAGE 1-B

— (CH₂)₇—Me—CH₂—CMe₃

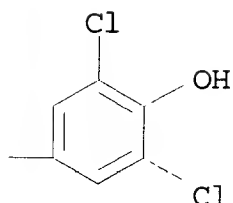
RN 362497-26-5 HCA

CN Benzenesulfonamide, N-[3-[[[4-[7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



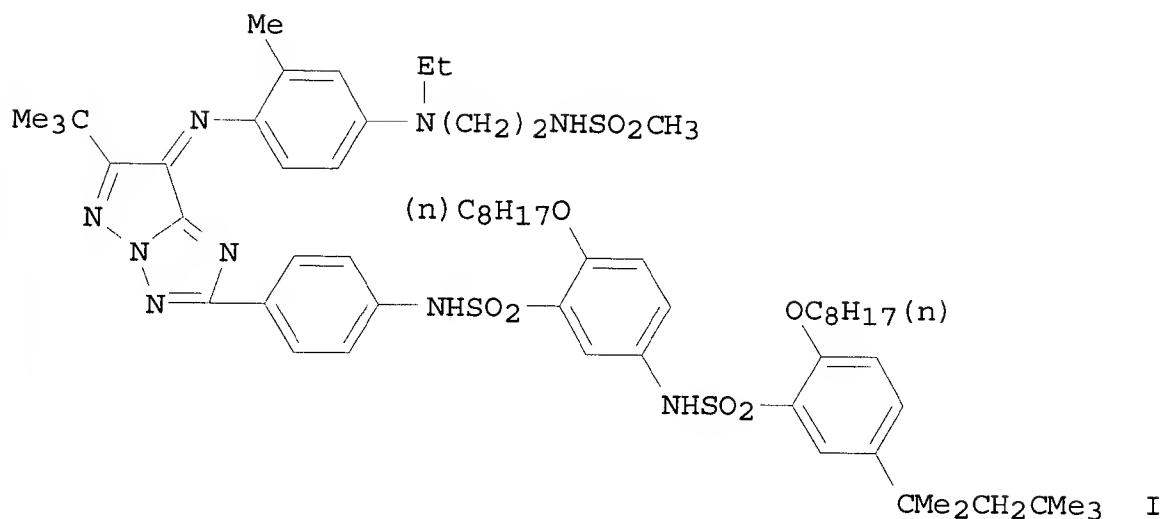
PAGE 1-B



IC ICM C09D011-00
 ICS B41J002-01; B41M005-00; C09B055-00
 CC 42-12 (Coatings, Inks, and Related Products)
 ST **ink jet** recording compn
 IT 149-45-1 18403-59-3 33145-10-7 58821-43-5 70806-79-0
 85238-64-8 89829-20-9 89929-64-6 89929-65-7 106135-09-5
 118150-13-3 118150-18-8 346709-26-0 **358342-86-6**
358342-91-3 358638-61-6 358638-71-8
358638-76-3 362497-25-4 362497-26-5
 369595-79-9 378249-59-3 378786-58-4 378786-59-5 378786-60-8
 379237-06-6 379237-14-6 379237-17-9 379237-20-4 379237-22-6
 (ink compn. for **ink jet** recording)

L11 ANSWER 5 OF 29 HCA COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 136:21058 HCA
 TITLE: Colored minute particle dispersions, aqueous
ink-jet inks and
printing method therewith
 INVENTOR(S): Yamanouchi, Junichi; Yamada, Masato
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 56 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001335734	A2	20011204	JP 2000-203856	20000705
PRIORITY APPLN. INFO.:			JP 2000-78518	A 20000321
OTHER SOURCE(S):			MARPAT 136:21058	
GI				

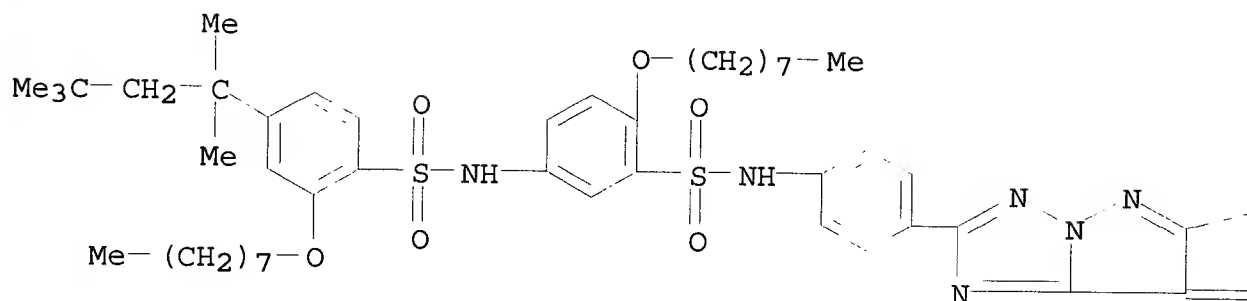


AB Title dispersions, useful to prep. storage-stable aq. **ink-jet inks** giving good prints on any paper substrates, are prepd. by dispersing colored minute particles consisting of nonionic oil-sol polymers, hydrophilic org. solvents with b.p. of .gtoreq.150.degree., and oil-sol. dyes in aq. media. Using poly(Bu methacrylate), tritolyl phosphate, tri(2,4,4-trimethylpentyl) phosphate, and I to prep. a dispersion, which was mixed with additives and water to form a (light) magenta ink. The yellow, black, and (light)cyan inks were prepd. similarly using different dyes to form an ink set showing stable printability initially and after 3 days at 60.degree. and resulting light- and water- and rubbing-resistant prints on various paper sheets.

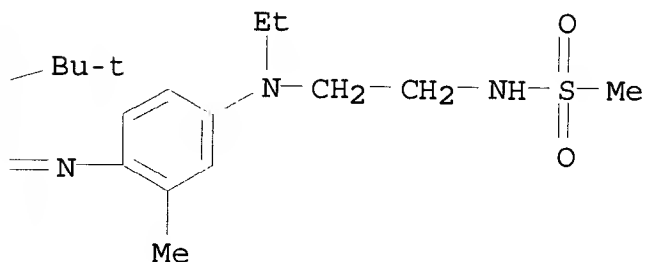
IT 377724-30-6
(oil-sol. dye- and nonionic polymer- and hydrophobic high b.p. org. solvent-based dispersions for aq. **ink-jet inks**)

RN 377724-30-6 HCA
CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-4-(1,1,3,3-tetramethylbutyl)- (9CI)
(CA INDEX NAME)

PAGE 1-A



PAGE 1-B



- IC ICM C09D017-00
 ICS B41J002-01; B41M005-00; C09B055-00; C09B067-02; C09B067-46;
 C09D011-00
 CC 42-12 (Coatings, Inks, and Related Products)
 IT **Inks**
 (jet-printing; oil-sol. dye- and nonionic
 polymer- and hydrophobic high b.p. org. solvent-based dispersions
 for aq. **ink-jet inks**)
 IT **Dyes**
 (oil-sol. dye- and nonionic polymer- and hydrophobic high b.p.
 org. solvent-based dispersions for aq. **ink-jet inks**)
 IT **Acrylic polymers, uses**
 (oil-sol. dye- and nonionic polymer- and hydrophobic high b.p.
 org. solvent-based dispersions for aq. **ink-jet inks**)
 IT **Solvents**
 (org.; oil-sol. dye- and nonionic polymer- and hydrophobic high
 b.p. org. solvent-based dispersions for aq. **ink-jet inks**)
 IT **Polyurethanes, uses**

(polyoxyalkylene-, block; oil-sol. dye- and nonionic polymer- and hydrophobic high b.p. org. solvent-based dispersions for aq. **ink-jet inks**)

IT 1330-78-5, Tritolyl phosphate 129877-64-1
(oil-sol. dye- and nonionic polymer- and hydrophobic high b.p. org. solvent-based dispersions for aq. **ink-jet inks**)

IT 9003-42-3, Ethyl methacrylate homopolymer 9003-63-8, Butyl methacrylate homopolymer 9011-15-8, Isobutyl methacrylate homopolymer 9011-87-4, Methyl acrylate-methyl methacrylate copolymer 25767-47-9, Butyl acrylate-styrene copolymer 26634-89-9, Butyl methacrylate-methyl methacrylate-styrene copolymer 201275-39-0, Ethyl methacrylate-polyoxyethylene methyl ether methacrylate-styrene copolymer 377724-28-2, Benzyl methacrylate-methyl methacrylate-polyethylene glycol methyl ether methacrylate copolymer 377724-29-3, 1,4-Butanediol-ethylene glycol-HMDI-polyethylene glycol-TDI block copolymer
(oil-sol. dye- and nonionic polymer- and hydrophobic high b.p. org. solvent-based dispersions for aq. **ink-jet inks**)

IT 70806-79-0 118150-13-3 118150-18-8 346709-26-0 369595-79-9
377724-30-6
(oil-sol. dye- and nonionic polymer- and hydrophobic high b.p. org. solvent-based dispersions for aq. **ink-jet inks**)

L11 ANSWER 6 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 135:359262 HCA

TITLE: Water-resistant **ink-jet**

ink composition with good discharge and storage stability and printing method therewith

INVENTOR(S): Azuma, Yasushi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

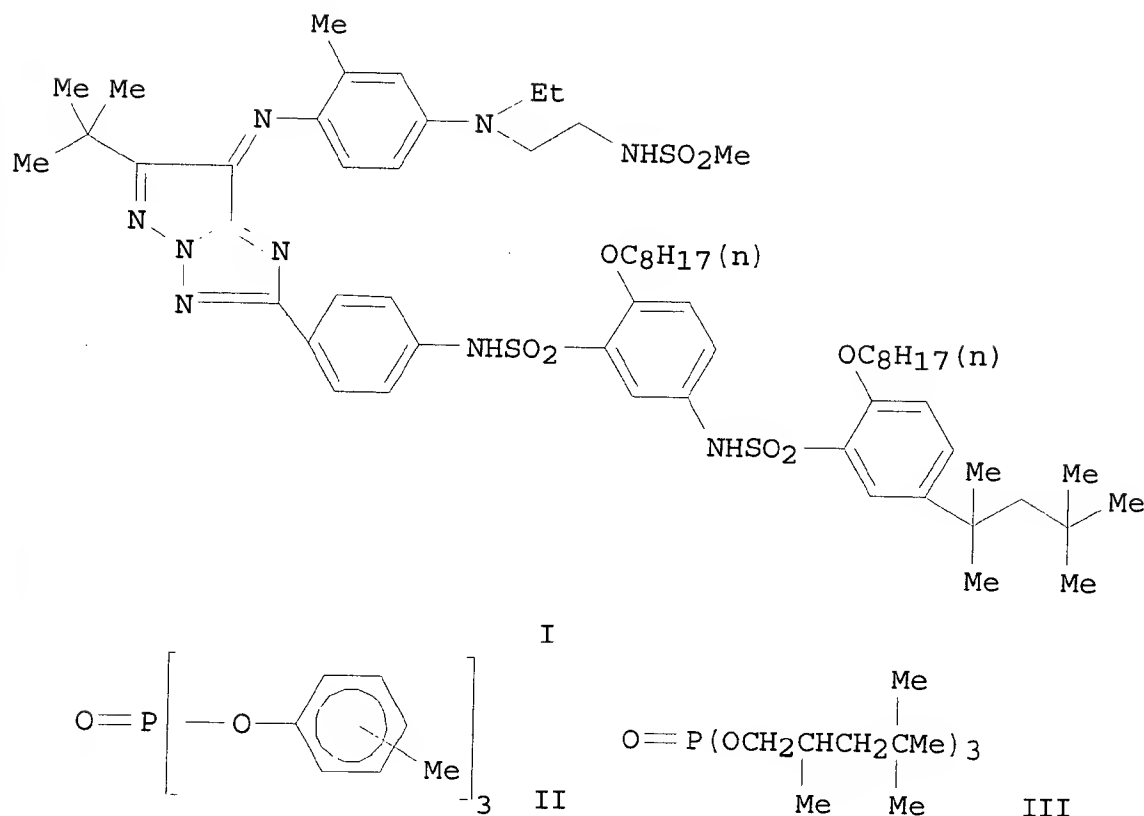
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001316605	A2	20011116	JP 2000-135543	20000509

OTHER SOURCE(S): MARPAT 135:359262

GI



AB Title ink compn. contains a dye dispersion prepd. by emulsifying in an aq. medium oil-sol. dyes dissolved by org. solvents having high b.p., wherein the dispersed particles are characterized by the vol.-av. diam. of .ltoreq.100 nm and the ratio of vol.-av. diam. and no.-av. diam. (vol.-av. diam./no.-av. diam.) 1-1.5. Thus, a dispersion comprising an azomethine dye I 8, Na dioctylsulfosuccinate 5, high-b.p. solvents II and III 6 and 10 g, and Et acetate 50 mL, was emulsified, desolvated, and added with diethylene glycol 130, glycerin 60, Na dioctylsulfosuccinate 7.2 g, and water 700 mL to give an ink showing good printing quality, esp. on white pigment-contg. image receiving paper.

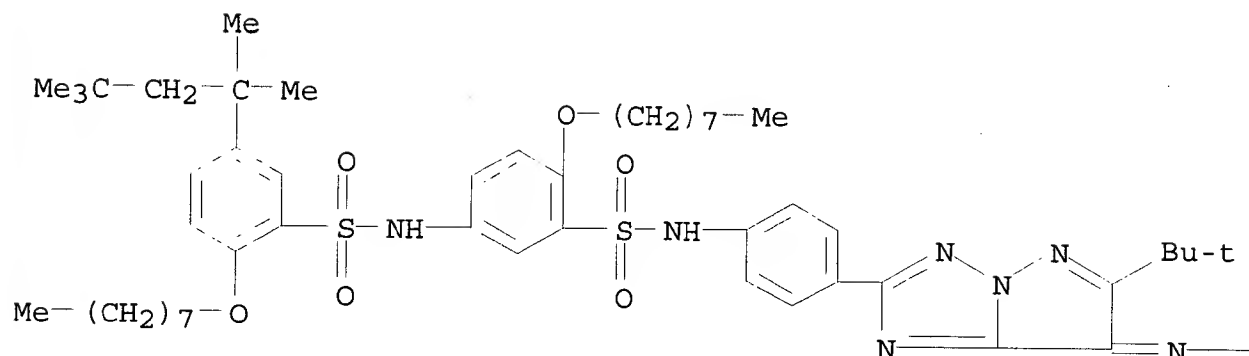
IT 358342-91-3 (prepn. of water-resistant ink-jet

ink compn. with good discharge and storage stability)

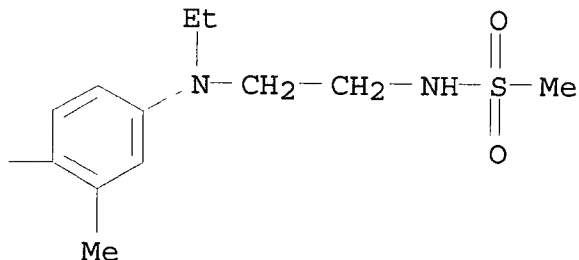
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
(CA INDEX NAME)

PAGE 1-A



PAGE 1-B



- IC ICM C09D011-00
ICS B41J002-01; B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
ST azomethine oil dye aq emulsion **jet ink** prepn
IT Dyes
(azomethine; prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT Water-resistant materials
(inks; prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT Inks
(**jet-printing**; prepn. of water-resistant **ink-jet ink** compn. with good discharge and storage stability)
IT Dyes
(oil-sol.; prepn. of water-resistant **ink-jet**

IT **ink** compn. with good discharge and storage stability)
 Dispersion (of materials)
 (prepn. of water-resistant **ink-jet**
ink compn. with good discharge and storage stability)
 IT Inks
 (water-resistant; prepn. of water-resistant **ink-**
jet ink compn. with good discharge and storage
 stability)
 IT Solvents
 (with high-b.p.; prepn. of water-resistant **ink-**
jet ink compn. with good discharge and storage
 stability)
 IT 577-11-7, Sodium dioctylsulfosuccinate
 (prepn. of water-resistant **ink-jet**
ink compn. with good discharge and storage stability)
 IT 56-81-5, Glycerin, uses 111-46-6, Diethylene glycol, uses
 1330-78-5 129877-64-1
 (prepn. of water-resistant **ink-jet**
ink compn. with good discharge and storage stability)
 IT 5844-01-9, C.I. Solvent Yellow 28 118150-13-3 346709-26-0
 358342-91-3
 (prepn. of water-resistant **ink-jet**
ink compn. with good discharge and storage stability)

L11 ANSWER 7 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 135:332619 HCA

TITLE: **Ink-jet ink** sets

containing ionic polymers and oil-soluble dyes
 INVENTOR(S): Yamanouchi, Junichi; Yamada, Makoto

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 44 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2001036979	A1	20011101	US 2001-800649	20010308
PRIORITY APPLN. INFO.:			JP 2000-78531 A	20000321
			JP 2000-203857 A	20000705

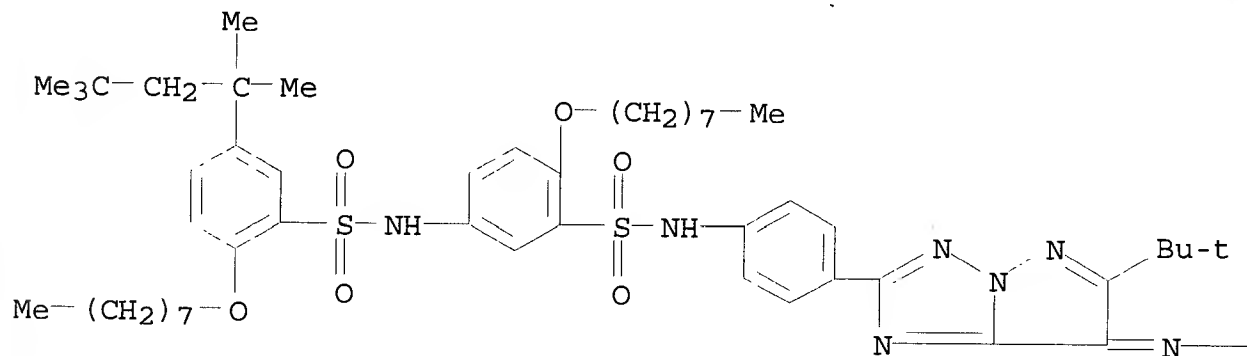
OTHER SOURCE(S): MARPAT 135:332619

AB An **ink-jet ink** which is excellent in
 handling properties, odor, safety, and dispersion stability of a
 coloring particulate, and which shows no paper-dependency, manifests
 excellent color developing property and hue when printed on any type
 of paper, and has various excellent properties. The **ink-**
jet ink contains a coloring compn. contg. a
 coloring particulate contg. an ionic-group-contg. polymer, an
 oil-sol. dye, and a hydrophobic high-boiling-point org. solvent
 having a b.p. of at least 150.degree., the coloring particulate

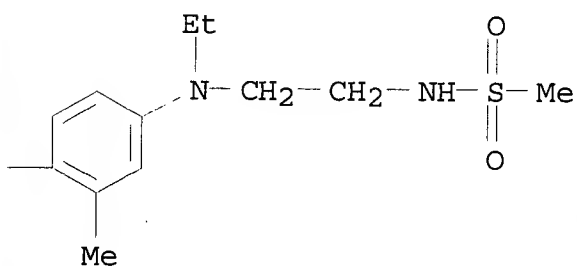
being dispersed in a water-based medium. The content of the hydrophobic high-boiling-point org. solvent in the coloring compn. is 25-95% with respect to a total amt. of the ionic-group-contg. polymer, the oil-sol. dye, and the hydrophobic high-boiling-point org. solvent.

IT 358342-91-3
 (ink-jet ink sets contg. ionic
 polymers and oil-sol. dyes)
 RN 358342-91-3 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-
 [(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-
 pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-
 (octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
 (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



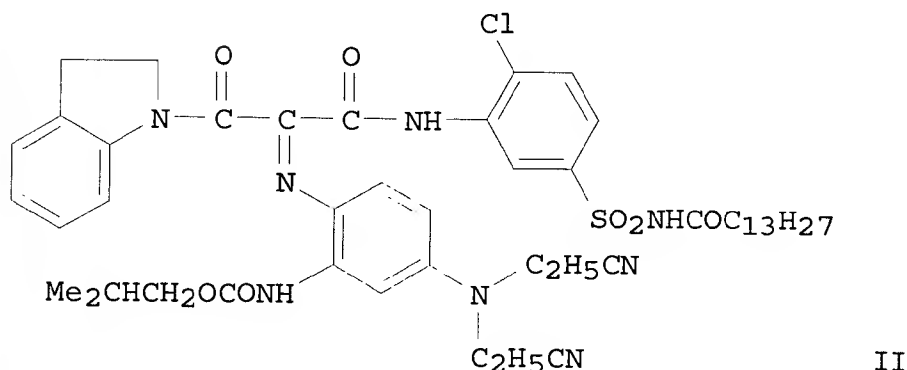
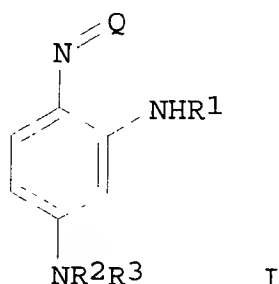
IC ICM C09D005-00

ICS C08K005-48; C08K005-34
 NCL 523161000
 CC 42-12 (Coatings, Inks, and Related Products)
 ST **jet ink** set ionic polymer oil sol dye; safety
jet printing ink
 IT **Inks**
 (**jet-printing; ink-jet**
 ink sets contg. ionic polymers and oil-sol. dyes)
 IT Dyes
 (oil-sol.; **ink-jet ink** sets contg.
 ionic polymers and oil-sol. dyes)
 IT 78-42-2 115-86-6
 (**ink-jet ink** sets contg. ionic
 polymers and oil-sol. dyes)
 IT 25085-35-2, Acrylic acid-ethyl acrylate copolymer 26284-14-0,
 Butyl methacrylate-methacrylic acid copolymer 26300-51-6, Acrylic
 acid-butyl acrylate-methyl methacrylate copolymer 149899-53-6,
 Acrylic acid-butyl methacrylate-1H,1H,2H,2H-perfluorodecyl acrylate
 copolymer 369595-76-6 369595-77-7 369595-80-2
 (**ink-jet ink** sets contg. ionic
 polymers and oil-sol. dyes)
 IT 70806-79-0 118150-13-3 118150-18-8 346709-26-0
 358342-91-3 369595-79-9 369595-81-3 369595-82-4
 (**ink-jet ink** sets contg. ionic
 polymers and oil-sol. dyes)

L11 ANSWER 8 OF 29 HCA COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 135:305326 HCA
 TITLE: Coloring compositions containing azomethine dye
 for **ink-jet inks**
 INVENTOR(S): Kawagishi, Toshio; Kimura, Keizo
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001288381	A2	20011016	JP 2000-102498	20000404

OTHER SOURCE(S): MARPAT 135:305326
 GI



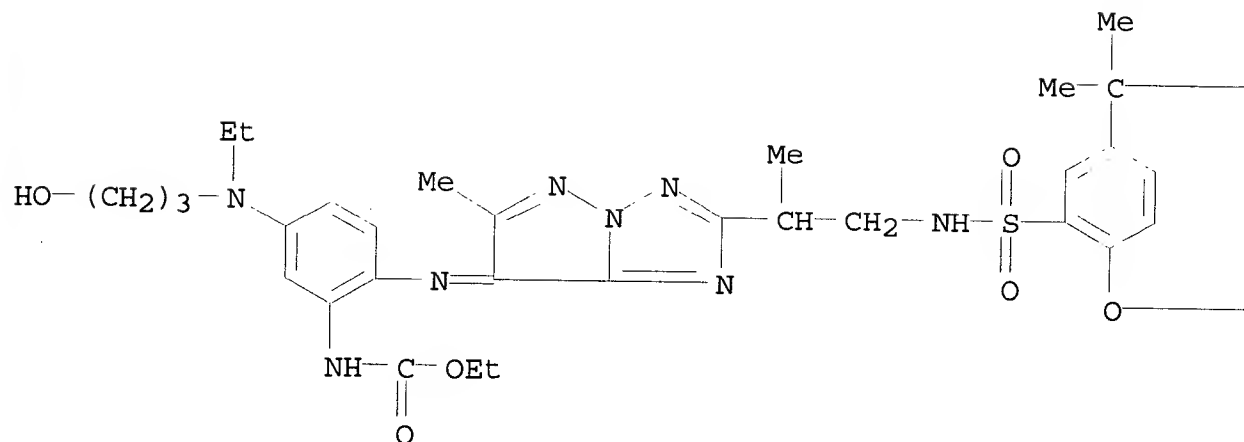
AB The compn. contains oil-sol. azomethine dye I (Q = at. group necessary for VIS and/or near IR absorption; R1 = H, acyl, aryloxy carbonyl, alkoxy carbonyl, carbamoyl, alkyl and arylsulfonyl, sulfamoyl, phosphinyl; R2, R3 = H, alkyl, aryl, heterocycyl, ring formed from R2 and R3) dispersed in an aq. medium. The coloring compns. are useful in **ink-jet inks** for aq. writing inks, aq. printing inks, aq. recording inks, etc. providing high-quality images independently of paper. Thus, 42 parts dispersion contg. acrylic acid-sec-Bu acrylate-acrylic copolymer and II was mixed with diethylene glycol 8, glycerin 8, triethylene glycol monobutyl ether 5, sodium hexaethylene glycol monododecyl ether sulfate 0.5, sodium di-2-ethylhexyl sulfosuccinate 0.5, and ion-exchanged H2O 36 parts to give a water-thinned **ink-jet ink** showing good good color tone, paper dependency, and water and light resistance.

IT 365540-31-4 365540-32-5 365540-33-6
(dye; coloring compns. contg. azomethine dyes for **ink-jet inks**)

RN 365540-31-4 HCA

CN Carbamic acid, [5-[ethyl(3-hydroxypropyl)amino]-2-[[6-methyl-2-[1-methyl-2-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]ethyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

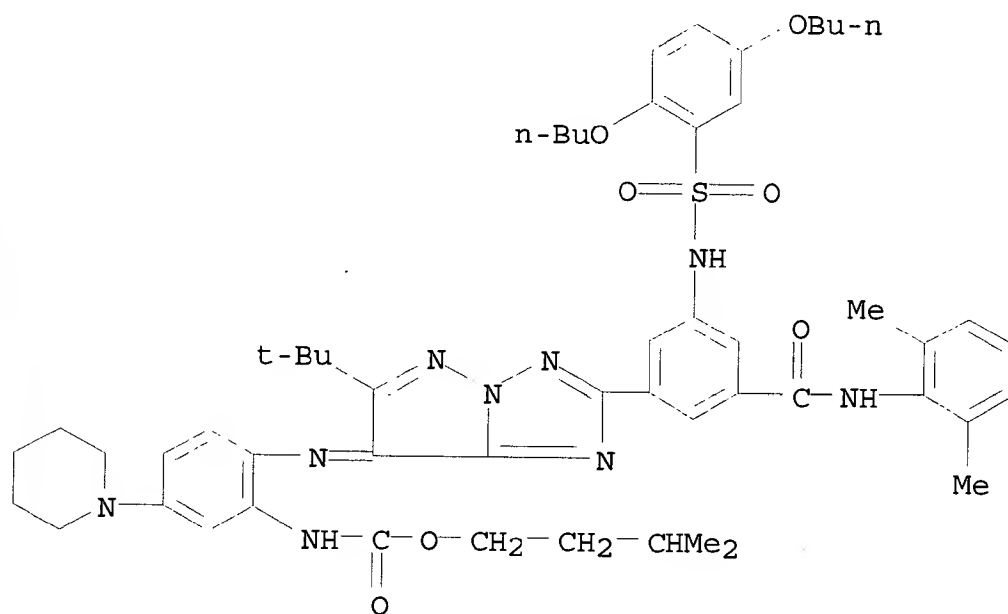
PAGE 1-A



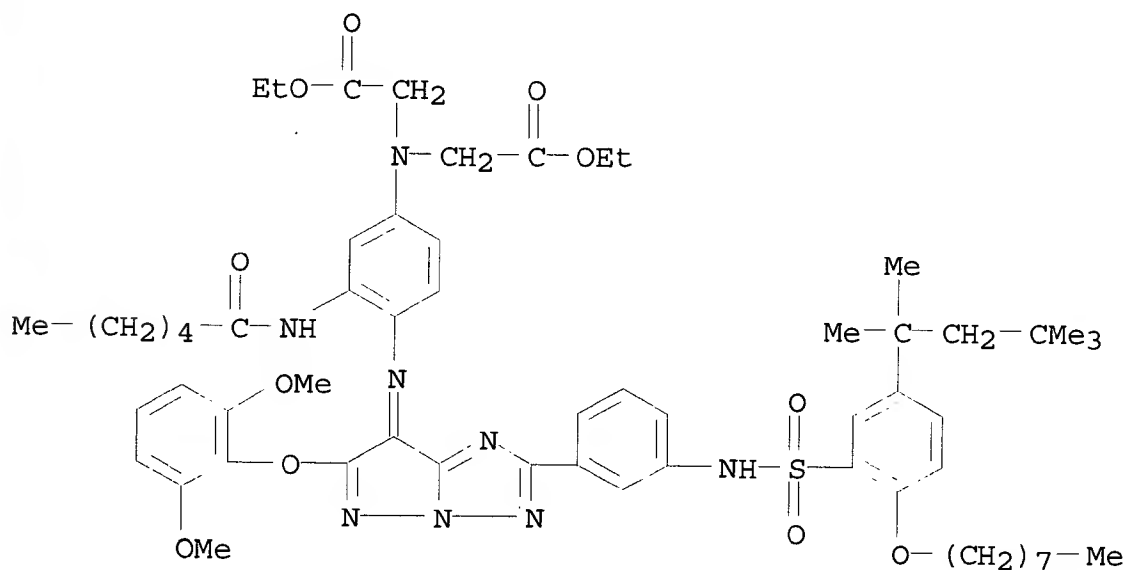
PAGE 1-B

— CH₂— CMe₃— (CH₂)₇— Me

RN 365540-32-5 HCA
 CN Carbamic acid, [2-[[2-[3-[[[(2,5-dibutoxyphenyl)sulfonyl]amino]-5-[[[(2,6-dimethylphenyl)amino]carbonyl]phenyl]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-5-(1-piperidinyl)phenyl]-, 3-methylbutyl ester (9CI) (CA INDEX NAME)



RN 365540-33-6 HCA
 CN Glycine, N- [4- [[6- (2,6-dimethoxyphenoxy) -2- [3- [[2- (octyloxy) -5- (1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl] -7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino] -3- [(1-oxohexyl)amino]phenyl] -N- (2-ethoxy-2-oxoethyl) -, ethyl ester (9CI)
 (CA INDEX NAME)



IC ICM C09B067-46
 ICS B41J002-01; B41M005-00; C09B055-00; C09D011-00

CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41

ST azomethine dye coloring compn **jet printing ink**

IT Polyoxyalkylenes, uses
(acrylic, graft; coloring compns. contg. azomethine dyes for **ink-jet inks**)

IT Dyes
(azomethine; coloring compns. contg. azomethine dyes for **ink-jet inks**)

IT Polyesters, uses
(coloring compns. contg. azomethine dyes for **ink-jet inks**)

IT Acrylic polymers, uses
(fluorine-contg.; coloring compns. contg. azomethine dyes for **ink-jet inks**)

IT **Inks**
(**jet-printing**, water-thinned; coloring compns. contg. azomethine dyes for **ink-jet inks**)

IT **Inks**
(printing, water-thinned; coloring compns. contg. azomethine dyes for **ink-jet inks**)

IT **Inks**
(writing, water-thinned; coloring compns. contg. azomethine dyes for **ink-jet inks**)

IT 67906-95-0, Acrylic acid-butyl acrylate-methyl methacrylate copolymer sodium salt 113032-06-7, Ethylene glycol-isophthalic acid-neopentyl glycol-5-sulfoisophthalic acid-terephthalic acid copolymer 363158-97-8 363158-99-0 363159-04-0 363607-63-0 363607-65-2 363607-66-3
(coloring compns. contg. azomethine dyes for **ink-jet inks**)

IT 365540-24-5 365540-25-6 365540-26-7 365540-27-8 365540-28-9 365540-29-0 365540-30-3 365540-31-4 365540-32-5 365540-33-6
(dye; coloring compns. contg. azomethine dyes for **ink-jet inks**)

L11 ANSWER 9 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 135:305323 HCA

TITLE: Colorant compositions and water-thinned **ink-jet inks** and **jet printing** method

INVENTOR(S): Kimura, Keizo; Kawagishi, Toshio

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 49 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

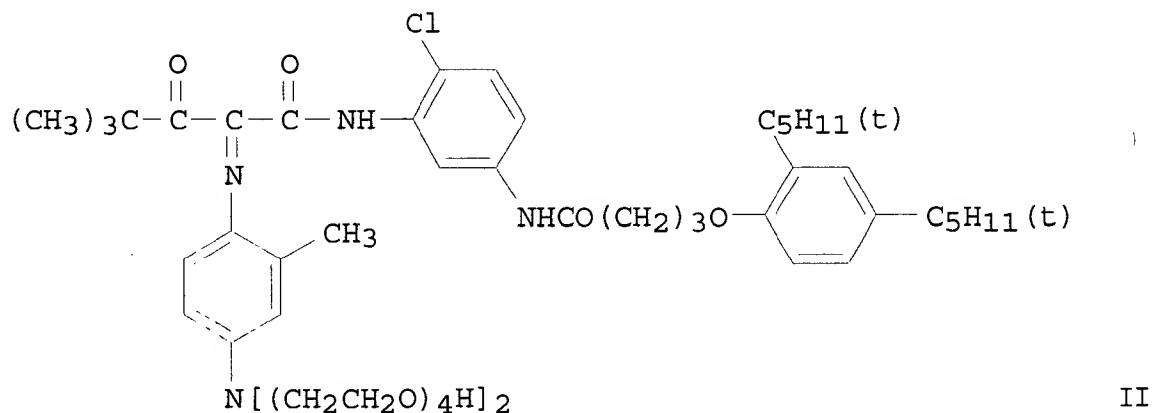
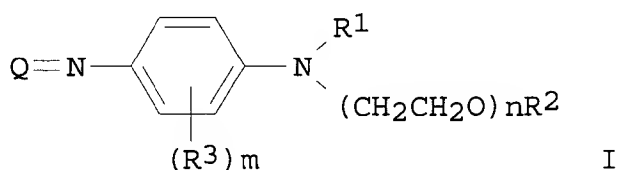
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001279120	A2	20011010	JP 2000-89257	20000328

OTHER SOURCE(S): MARPAT 135:305323

GI



AB The colorant compns. contain oil-sol. dyes I (Q = at. group necessary for visible light and/or near IR absorption; R1, R2 = H, alkyl, aryl, heterocyclic; R3 = substituent, where .gtoreq.2 of R3 may form ring when m .gtoreq.2; m = 0-4; n = 2-8) bearing .ltoreq.4 OH groups. The colorant compns. are prepd. by dissolving dyes in org. solvents having b.p. .gtoreq.150.degree. and dielec. const. 3-12 at 25.degree., and dispersing in water. Thus, a water-thinned **jet printing ink** contg. II showed good printability and water and light resistance.

IT 365454-76-8 365454-77-9 365454-78-0
365454-81-5 365454-82-6

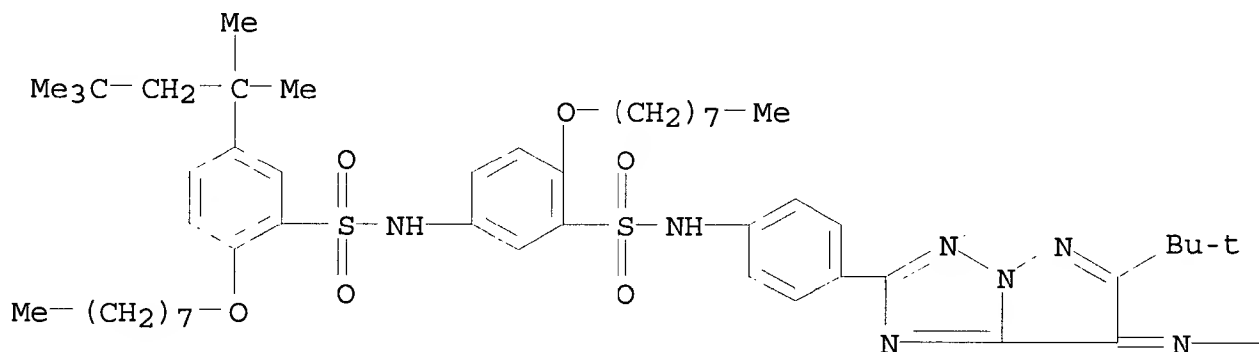
(oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)

RN 365454-76-8 HCA

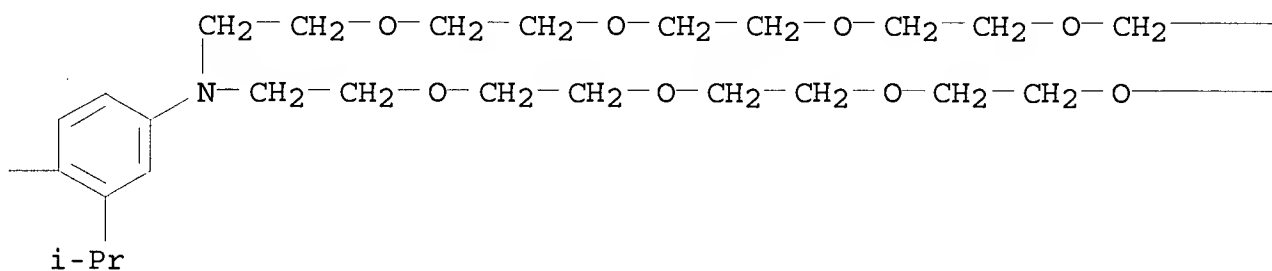
CN Benzenesulfonamide, N-[3-[[[4-[7-[[4-[bis(3,6,9,12,15,18-hexaoxonadec-1-yl)amino]-2-(1-methylethyl)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-

(1,1,3,3-tetramethylbutyl) - (9CI) (CA INDEX NAME)

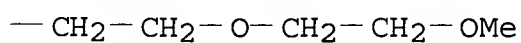
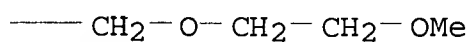
PAGE 1-A



PAGE 1-B

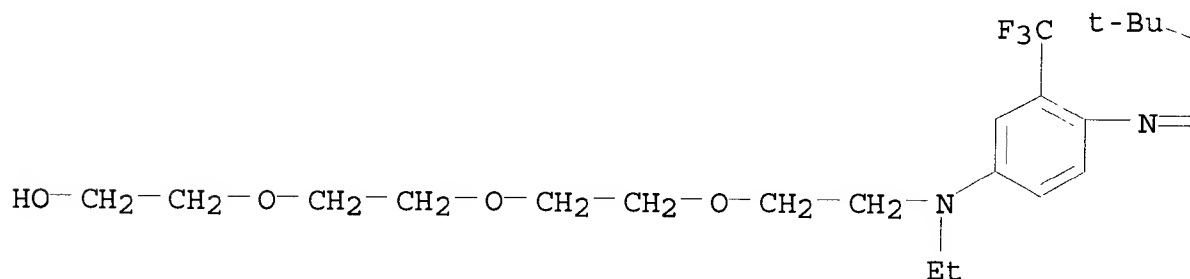


PAGE 1-C

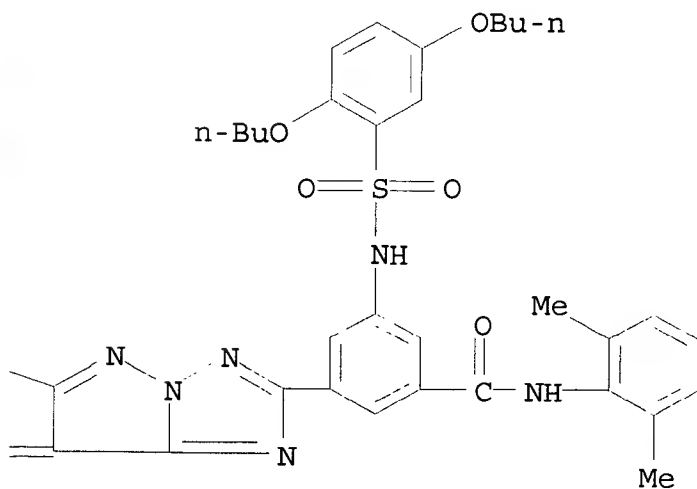


RN 365454-77-9 HCA
 CN Benzamide, 3-[[[(2,5-dibutoxyphenyl)sulfonyl]amino]-5-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]ethyl]amino]-2-(trifluoromethyl)phenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-N-(2,6-dimethylphenyl)-(9CI) (CA INDEX NAME)

PAGE 1-A



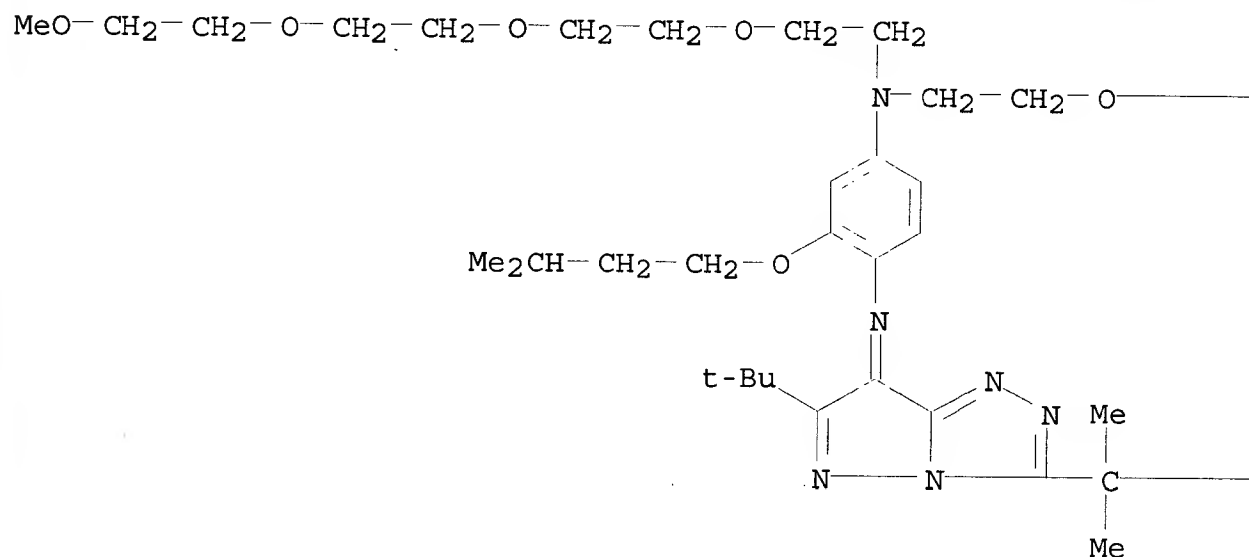
PAGE 1-B



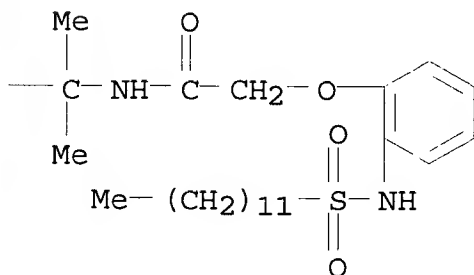
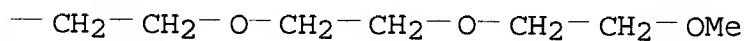
RN 365454-78-0 HCA

CN Acetamide, N-[2-[7-[4-[bis(3,6,9,12-tetraoxatridec-1-yl)amino]-2-(3-methylbutoxy)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-1,1,2-trimethylpropyl]-2-[2-[(dodecylsulfonyl)amino]phenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A

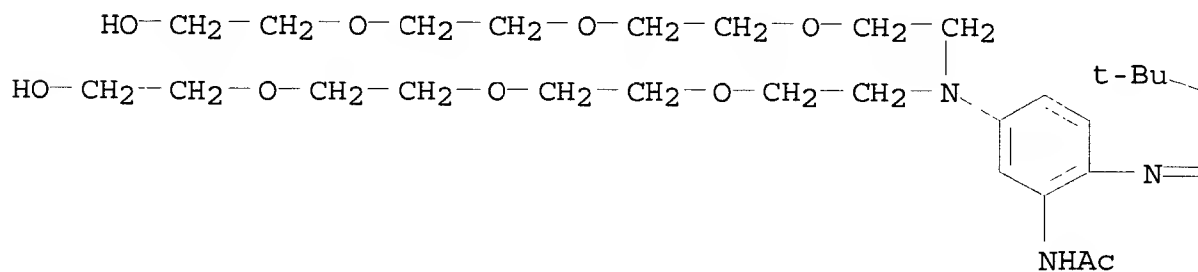


PAGE 1-B

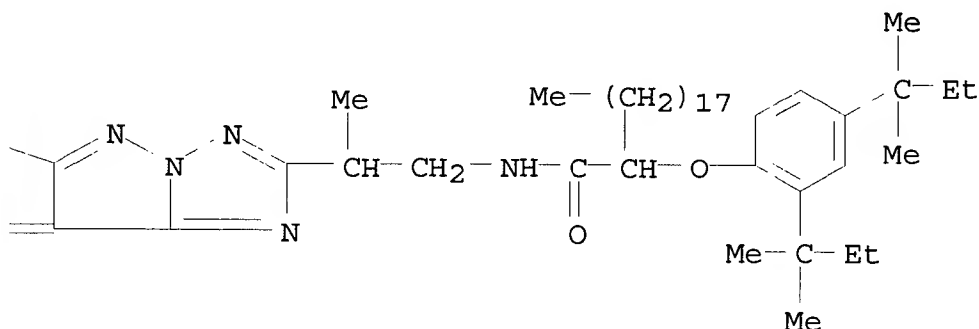


RN 365454-81-5 HCA
 CN Eicosanamide, N-[2-[7-[[2-(acetylamino)-4-[bis[2-[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]ethyl]amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A



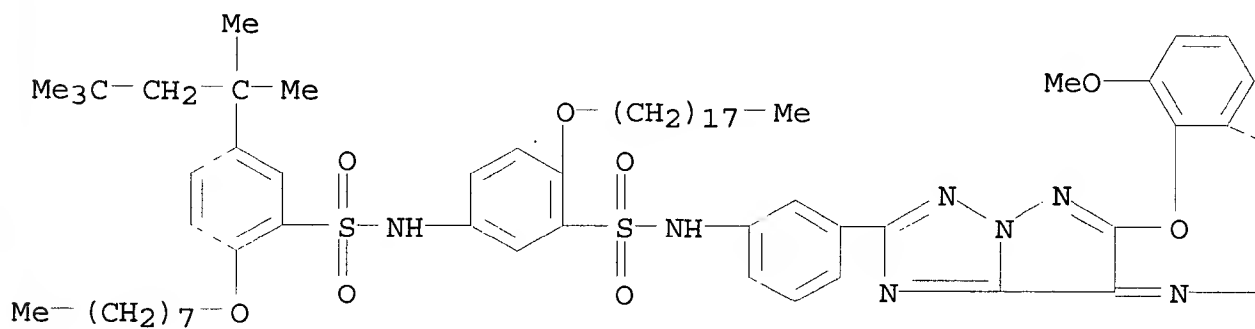
PAGE 1-B



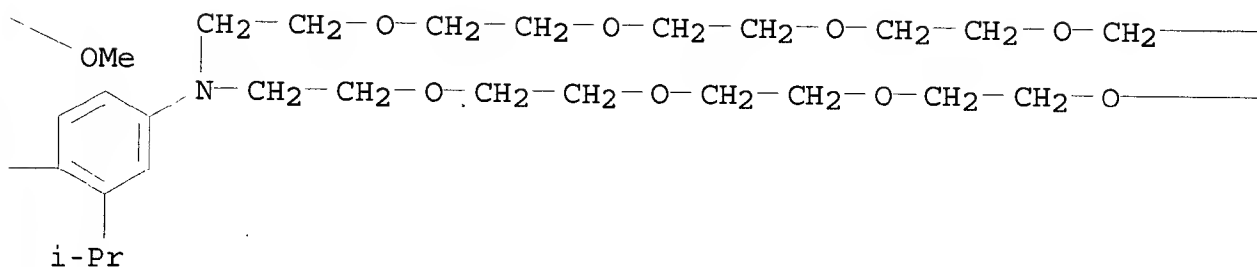
RN 365454-82-6 HCA

CN Benzenesulfonamide, N-[3-[[[3-[7-[4-[bis(14-hydroxy-3,6,9,12-tetraoxatetradec-1-yl)amino]-2-(1-methylethyl)phenyl]imino]-6-(2,6-dimethoxyphenoxy)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octadecyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



PAGE 1-C

— CH₂— OH

— CH₂— CH₂— OH

- IC ICM C09B055-00
ICS B41J002-01; B41M005-00; C09B067-40; C09D011-00; C09D017-00
- CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
- ST oil sol dye **jet printing ink**; water
thinned **jet printing ink** light
resistance; org solvent water thinned **jet printing ink**
- IT Polyesters, uses
(dispersants; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT **Inks**
(**jet-printing**, water-thinned; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT Dispersing agents
(oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT Dyes
(oil-sol.; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)

- IT 26300-51-6, Acrylic acid-butyl acrylate-methyl methacrylate copolymer 39611-96-6, Acrylic acid-sec-butyl acrylate copolymer 59041-14-4, Methacrylic acid-methyl methacrylate-2,2,2-trifluoroethyl methacrylate copolymer 113032-06-7, Ethylene glycol-isophthalic acid-neopentyl glycol-5-sulfoisophthalic acid-terephthalic acid copolymer 363159-03-9 363607-64-1, 2-Acrylamido-2-methylpropanesulfonic acid-tert-butyl methacrylate-ethyl acrylate copolymer
(dispersants; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT 365245-54-1, Acrylic acid-isobutyl methacrylate-methoxy polyethylene glycol methacrylate copolymer
(oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT 365454-72-4 365454-73-5 365454-74-6 365454-75-7
365454-76-8 365454-77-9 365454-78-0
365454-79-1 365454-80-4 365454-81-5 365454-82-6
365454-83-7 365454-84-8 365454-85-9 365454-86-0
(oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT 84-74-2, Dibutyl phthalate 1330-78-5 26967-76-0 129877-64-1
(solvent; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)

L11 ANSWER 10 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 135:305321 HCA

TITLE: Colorant compositions and water-thinned **ink-jet inks** and **jet printing** method

INVENTOR(S): Kimura, Keizo; Kawagishi, Toshio

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 60 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2001279124	A2	20011010	JP 2000-92150	20000329

OTHER SOURCE(S): MARPAT 135:305321

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The colorant compns. contain oil-sol. dyes I and/or II (Q1, Q2 = at. group necessary for visible light and/or near IR absorption; R11 = substituent, where .gtoreq.2 of R11 may form ring when m .gtoreq.2;

R21 = H, alkyl, aryl, heterocyclic; R22 = substituent, where .gtoreq.2 of R22 may form ring when n .gtoreq.2; m, n = 0-4). The colorant compns. are prepd. by dissolving dyes in org. solvents having b.p. .gtoreq.150.degree. and dielec. const. 3-12 at 25.degree., and dispersing in water. Thus, a water-thinned **jet printing ink** contg. III showed good printability and water and light resistance.

IT

365452-52-4 365452-53-5 365452-61-5

365452-62-6 365452-67-1 365452-71-7

365452-72-8 365452-73-9

(oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)

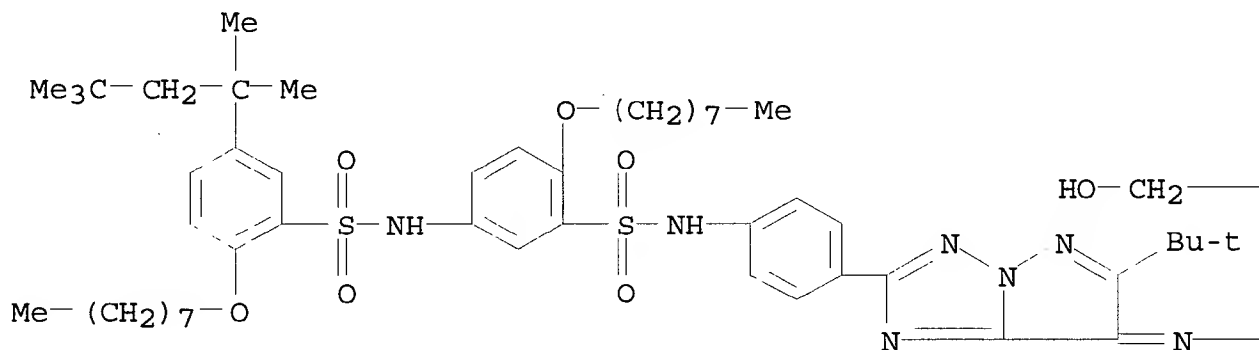
RN

365452-52-4 HCA

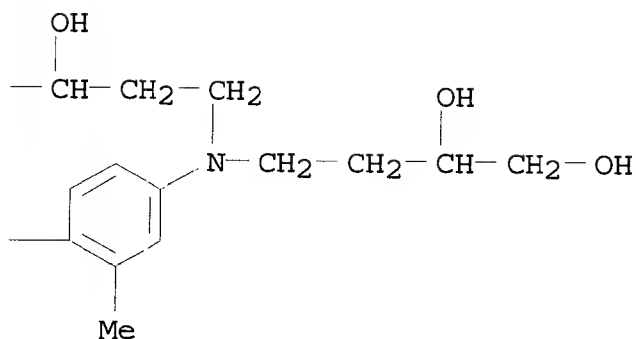
CN

Benzenesulfonamide, N-[3-[[[4-[7-[[4-[bis(3,4-dihydroxybutyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

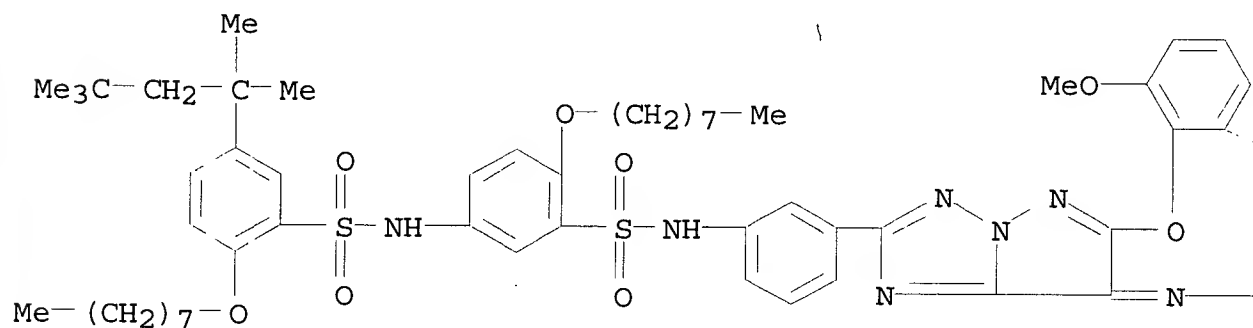


PAGE 1-B

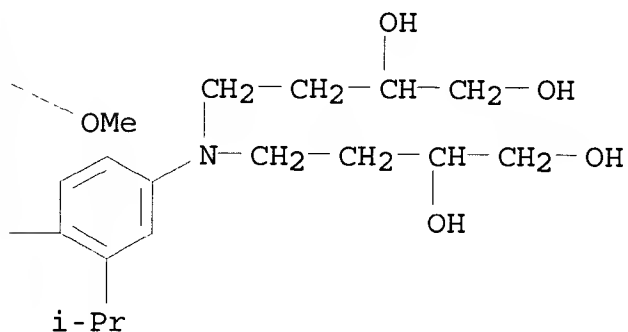


RN 365452-53-5 HCA
 CN Benzenesulfonamide, N-[3-[[[3-[7-[[4-[bis(3,4-dihydroxybutyl)amino]-2-(1-methylethyl)phenyl]imino]-6-(2,6-dimethoxyphenoxy)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
 (CA INDEX NAME)

PAGE 1-A



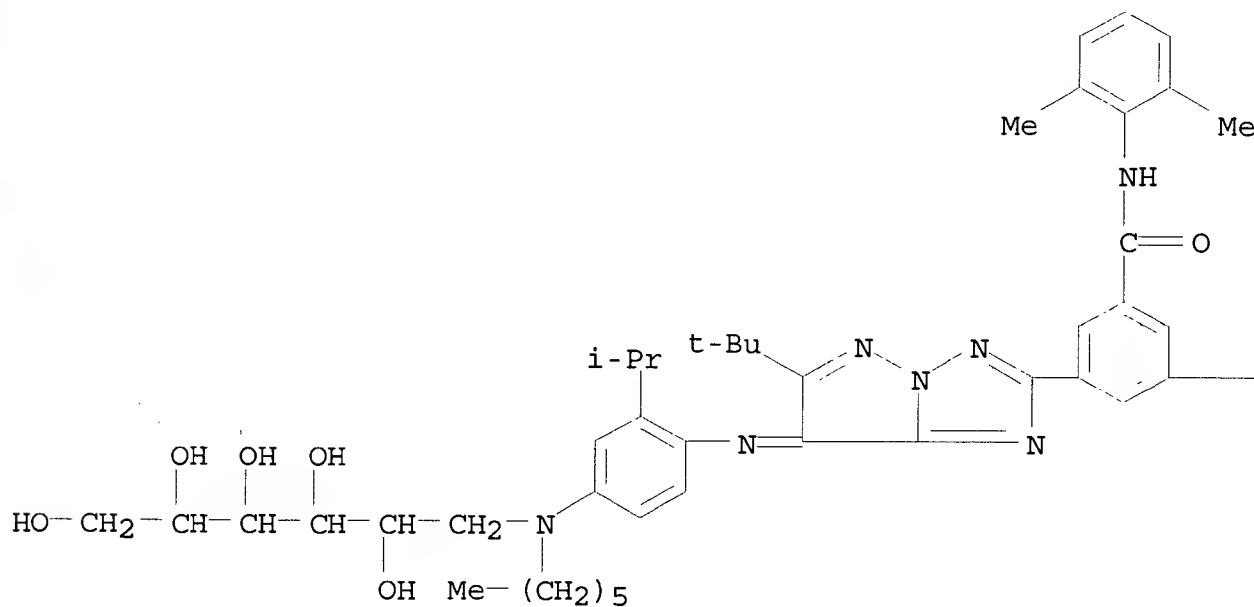
PAGE 1-B



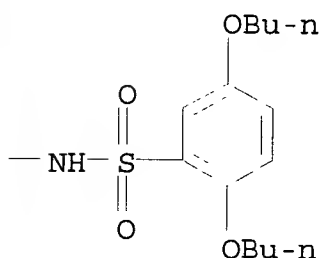
RN 365452-61-5 HCA

CN Hexitol, 1-deoxy-1-[[4-[[2-[3-[[[(2,5-dibutoxyphenyl)sulfonyl]amino]-5-[[[(2,6-dimethylphenyl)amino]carbonyl]phenyl]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-(1-methylethyl)phenyl]hexylamino]- (9CI) (CA INDEX NAME)

PAGE 1-A



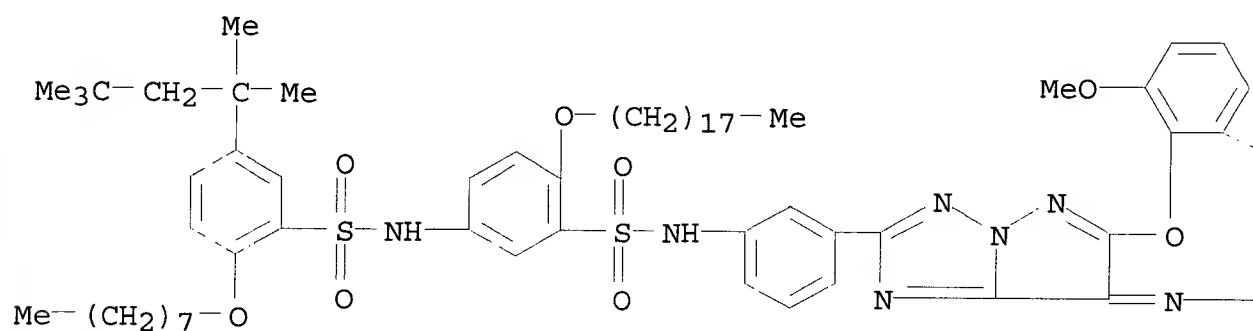
PAGE 1-B



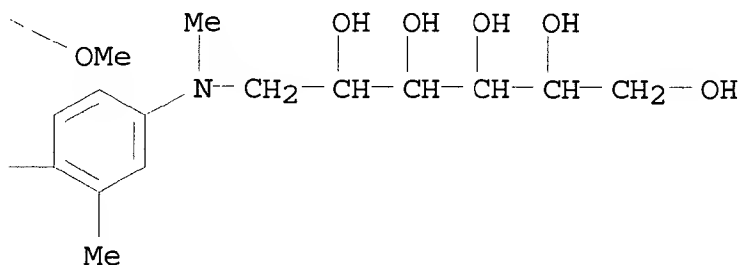
RN 365452-62-6 HCA

CN Hexitol, 1-deoxy-1-[[4-[[6-(2,6-dimethoxyphenoxy)-2-[3-[[[2-(octadecyloxy)-5-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]sulfonyl]amino]phenyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-methylphenyl]methylamino]-(9CI) (CA INDEX NAME)

PAGE 1-A

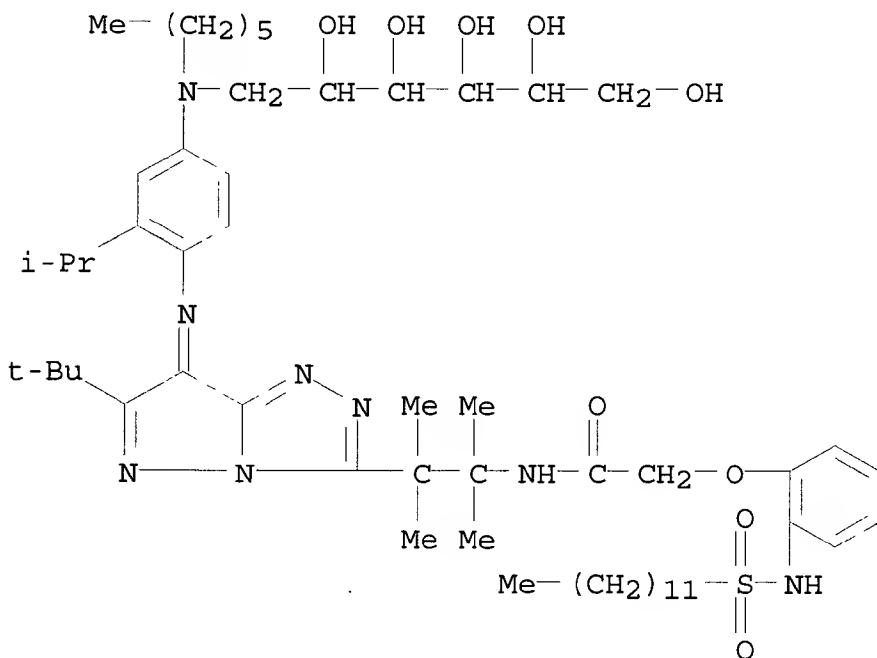


PAGE 1-B



RN 365452-67-1 HCA

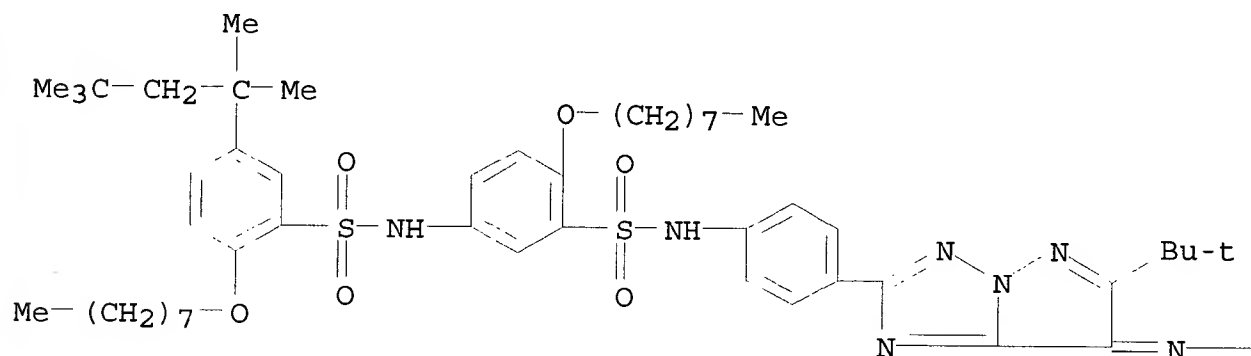
CN Hexitol, 1-deoxy-1-[[4-[[6-(1,1-dimethylethyl)-3-[2-[[[2-
[(dodecylsulfonyl)amino]phenoxy]acetyl]amino]-1,1,2-trimethylpropyl]-
7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-(1-
methylethyl)phenyl]hexylamino]- (9CI) (CA INDEX NAME)



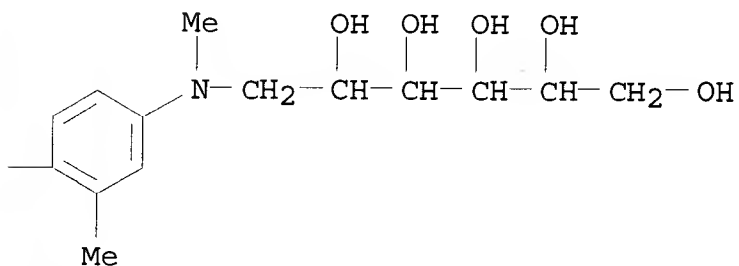
RN 365452-71-7 HCA

CN Hexitol, 1-deoxy-1-[[4-[[6-(1,1-dimethylethyl)-2-[4-[[[2-(octyloxy)-5-[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]sulfonyl]amino]phenyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-methylphenyl]methylamino]-(9CI) (CA INDEX NAME)

PAGE 1-A



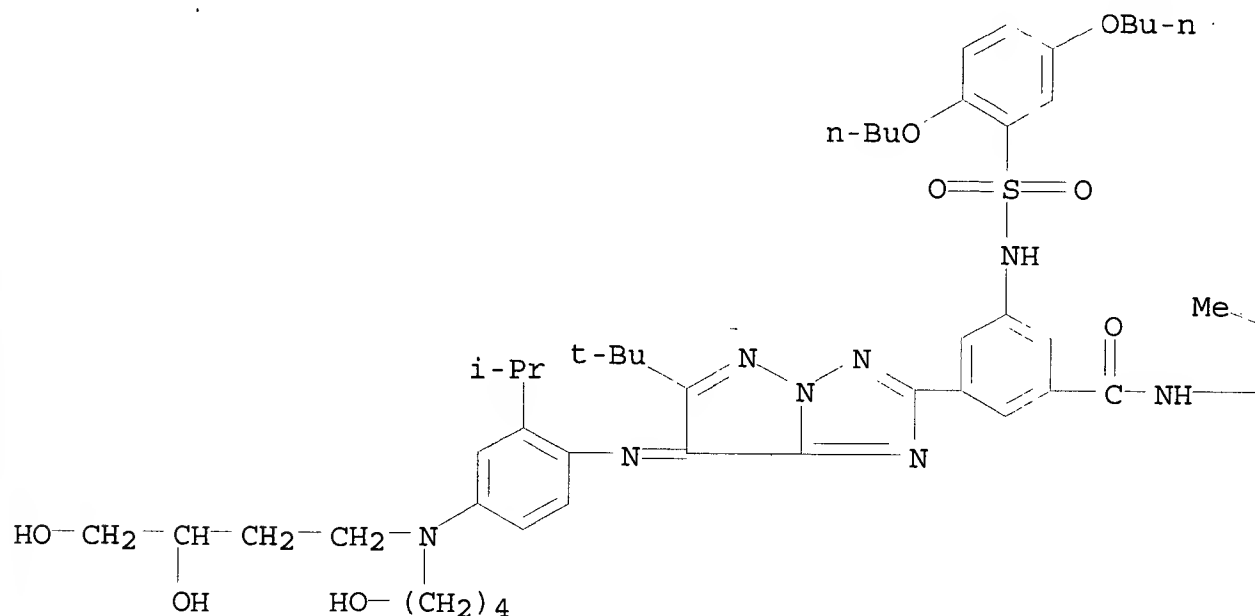
PAGE 1-B



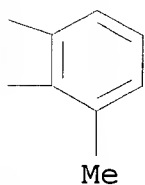
RN 365452-72-8 HCA

CN Benzamide, 3-[[[(2,5-dibutoxyphenyl)sulfonyl]amino]-5-[7-[[4-[(3,4-dihydroxybutyl)(4-hydroxybutyl)amino]-2-(1-methylethyl)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-N-(2,6-dimethylphenyl)-(9CI) (CA INDEX NAME)

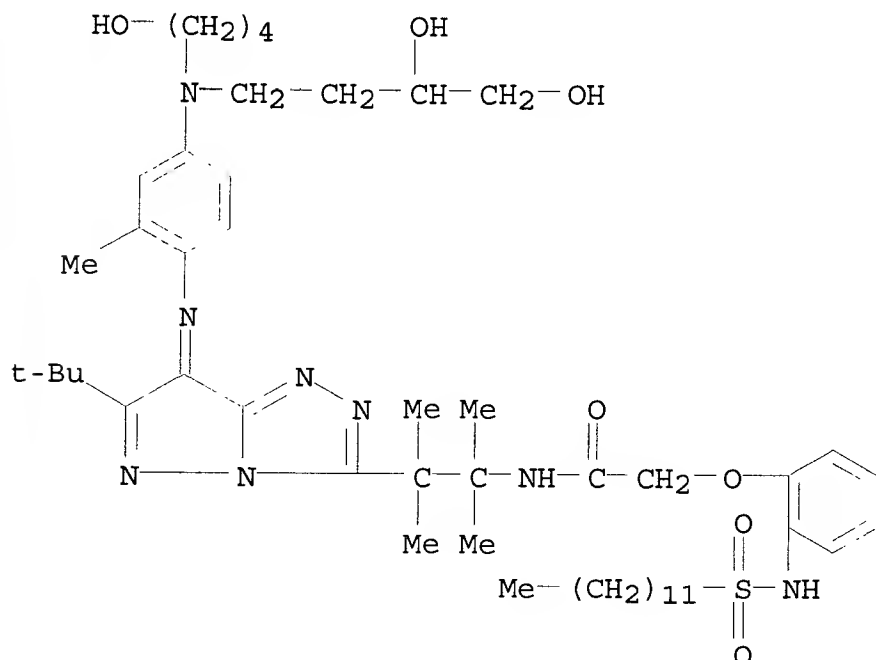
PAGE 1-A



PAGE 1-B



RN 365452-73-9 HCA
 CN Acetamide, N-[2-[7-[[4-[(3,4-dihydroxybutyl)(4-hydroxybutyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-1,1,2-trimethylpropyl]-2-[2-[(dodecylsulfonyl)amino]phenoxy]-(9CI) (CA INDEX NAME)



- IC ICM C09B055-00
ICS B41J002-01; B41M005-00; C09B067-46; C09D011-00
- CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
- ST oil sol dye **jet printing ink**; water
thinned **jet printing ink** light
resistance; org solvent water thinned **jet printing ink**
- IT Polyesters, uses
(dispersants; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT **Inks**
(**jet-printing**, water-thinned; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT Dispersing agents
(oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT Dyes
(oil-sol.; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)
- IT 26300-51-6, Acrylic acid-butyl acrylate-methyl methacrylate copolymer 28062-47-7, Acrylic acid-ethyl methacrylate copolymer 39611-96-6, Acrylic acid-sec-butyl acrylate copolymer 59041-14-4, Methacrylic acid-methyl methacrylate-2,2,2-trifluoroethyl methacrylate copolymer 113032-06-7, Ethylene glycol-isophthalic acid-neopentyl glycol-5-sulfoisophthalic acid-terephthalic acid copolymer 363159-03-9, Methacrylic acid-N-tert-octyl acrylamide-propyl methacrylate copolymer 363607-64-1,

2-Acrylamido-2-methylpropanesulfonic acid-tert-butyl
methacrylate-ethyl acrylate copolymer

(dispersants; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)

IT 365452-48-8 365452-49-9 365452-50-2 365452-51-3
365452-52-4 365452-53-5 365452-54-6
365452-55-7 365452-56-8 365452-57-9 365452-58-0 365452-59-1
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365452-63-7 365452-64-8 365452-65-9 365452-66-0
365452-67-1 365452-68-2 365452-69-3 365452-70-6
365452-71-7 365452-72-8 365452-73-9

(oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)

IT 84-74-2, Dibutyl phthalate 1330-78-5 26967-76-0
(solvent; oil-sol. dyes for water-thinned **ink-jet inks** with good light and water resistance)

L11 ANSWER 11 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 135:274342 HCA

TITLE: Manufacture of **ink-jet ink** and **ink-jet**

recording method

INVENTOR(S): Arakawa, Jun

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Eur. Pat. Appl., 57 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1136530	A2	20010926	EP 2001-106957	20010320
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001262018	A2	20010926	JP 2000-78454	20000321
US 2002007762	A1	20020124	US 2001-800778	20010308
PRIORITY APPLN. INFO.:			JP 2000-78454	A 20000321

OTHER SOURCE(S): MARPAT 135:274342

AB An **jet printing ink** with good discharge stability comprises a dye dispersion produced by dissolving an oil-sol. dye (structures specified) in a high-boiling org. solvent (b.p. .gtoreq.150.degree.) having a specific inductive capacity at 25.degree. of 3-12, emulsifying the oil-sol. dye in a H2O-based medium and dispersing the dye at a pressure of .gtoreq.50 MPa using a high-pressure emulsifying and dispersing device. A typical title ink was manufd. by dissolving an oil-sol. pyrazolotriazole azomethine dye and dioctyl Na sulfosuccinate in a mixt. of (MeC6H4O)3PO, (Me3CCH2CHMeCH2O)3PO and EtOAc, adding H2O to the stirred mixt., dispersing the resulting emulsion in a high-pressure (600 bar) device, removing EtOAc by distn. and adding

diethylene glycol, glycerol, Surfynol 465 and H2O to the resulting dispersion.

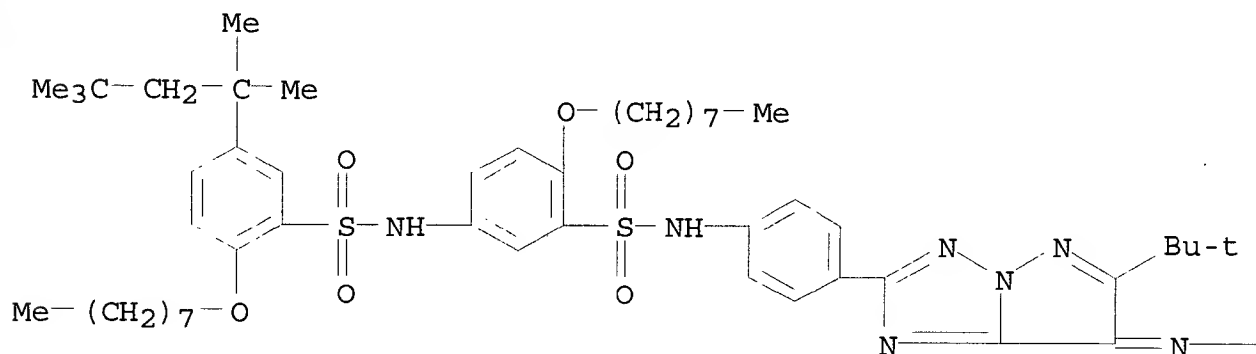
IT 358342-91-3

(oil-sol. dye; manuf of **ink-jet ink**
and **ink-jet** recording method)

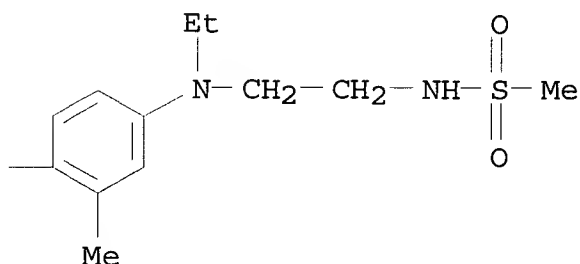
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
(CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C09D011-00

ICS C09B055-00

CC 42-12 (Coatings, Inks, and Related Products)

ST **jet printing ink** manuf;

pyrazolotriazole azomethine oil soluble dye **jet printing ink** manuf; cresyl phosphate solvent
jet printing ink manuf; octyl phosphate solvent **jet printing ink** manuf; dielec
 const org solvent aq dispersion **jet printing ink**

- IT Dyes
 (azomethine, pyrazolotriazole derivs.; manuf of **ink-jet ink** and **ink-jet** recording method)
- IT Inks
 (**jet-printing**; manuf of **ink-jet ink** and **ink-jet** recording method)
- IT **Ink-jet printing**
 (manuf of **ink-jet ink** and **ink-jet** recording method)
- IT Dyes
 (oil-sol., azomethine, pyrazolotriazole derivs.; manuf of **ink-jet ink** and **ink-jet** recording method)
- IT Solvents
 (org., high-boiling; manuf of **ink-jet ink** and **ink-jet** recording method)
- IT 577-11-7, Dioctyl sodium sulfosuccinate
 (emulsifier; manuf of **ink-jet ink** and **ink-jet** recording method)
- IT 358342-91-3
 (oil-sol. dye; manuf of **ink-jet ink** and **ink-jet** recording method)
- IT 108-88-3, Toluene, uses 141-78-6, Ethyl acetate, uses 827-52-1, Cyclohexylbenzene 1330-78-5, Tricresyl phosphate 129877-64-1
 (solvent; manuf of **ink-jet ink** and **ink-jet** recording method)

L11 ANSWER 12 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER:

135:264584 HCA

TITLE:

Color microparticle dispersion for **ink-jet printing ink** and **ink-jet printing** method

INVENTOR(S):

Ishizuka, Takahiro; Kimura, Keizo; Sano, Kazue

PATENT ASSIGNEE(S):

Fuji Photo Film Co., Ltd., Japan

SOURCE:

Jpn. Kokai Tokkyo Koho, 42 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

JP 2001262039 A2 20010926 JP 2000-80259 20000322

OTHER SOURCE(S): MARPAT 135:264584

AB The title color microparticle dispersion comprises color microparticles contg. an oil-sol. dye and a vinyl polymer having a decomposable terminal group. The **ink-jet printing ink** and the **ink-jet printing** method are also claimed. The color microparticles have a small grain diam. and good dispersibility in the **ink-jet printing ink**.

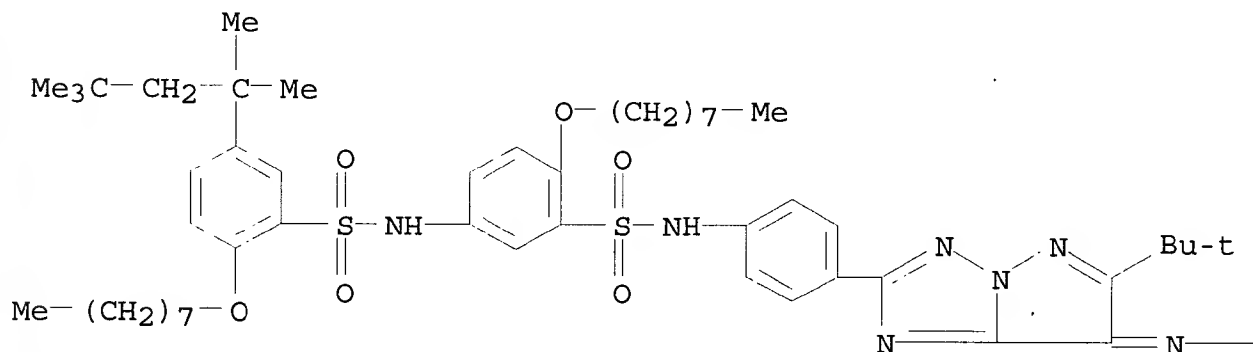
IT 358342-81-1 358342-91-3 358638-80-9
358638-81-0 362497-25-4 362497-26-5
362497-27-6

(oil-sol. dye; color microparticle dispersion for **ink-jet printing ink**)

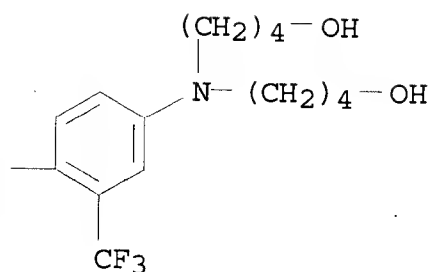
RN 358342-81-1 HCA

CN Benzenesulfonamide, N-[3-[[[4-[7-[[4-[bis(4-hydroxybutyl)amino]-2-(trifluoromethyl)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



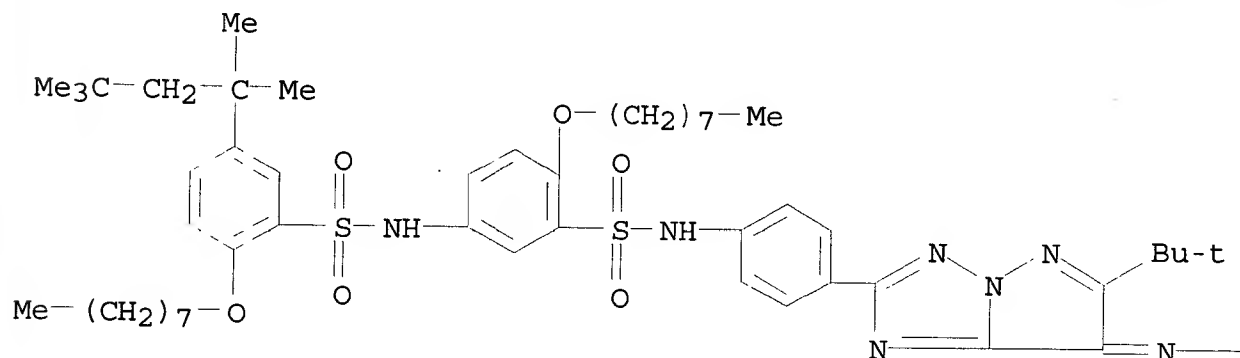
PAGE 1-B



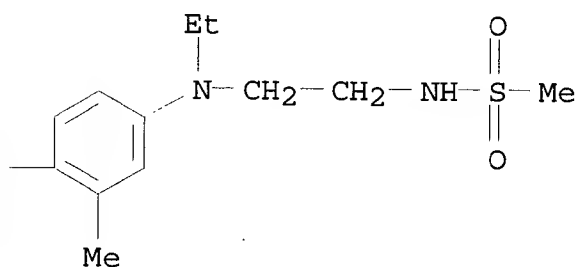
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl 2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
(CA INDEX NAME)

PAGE 1-A

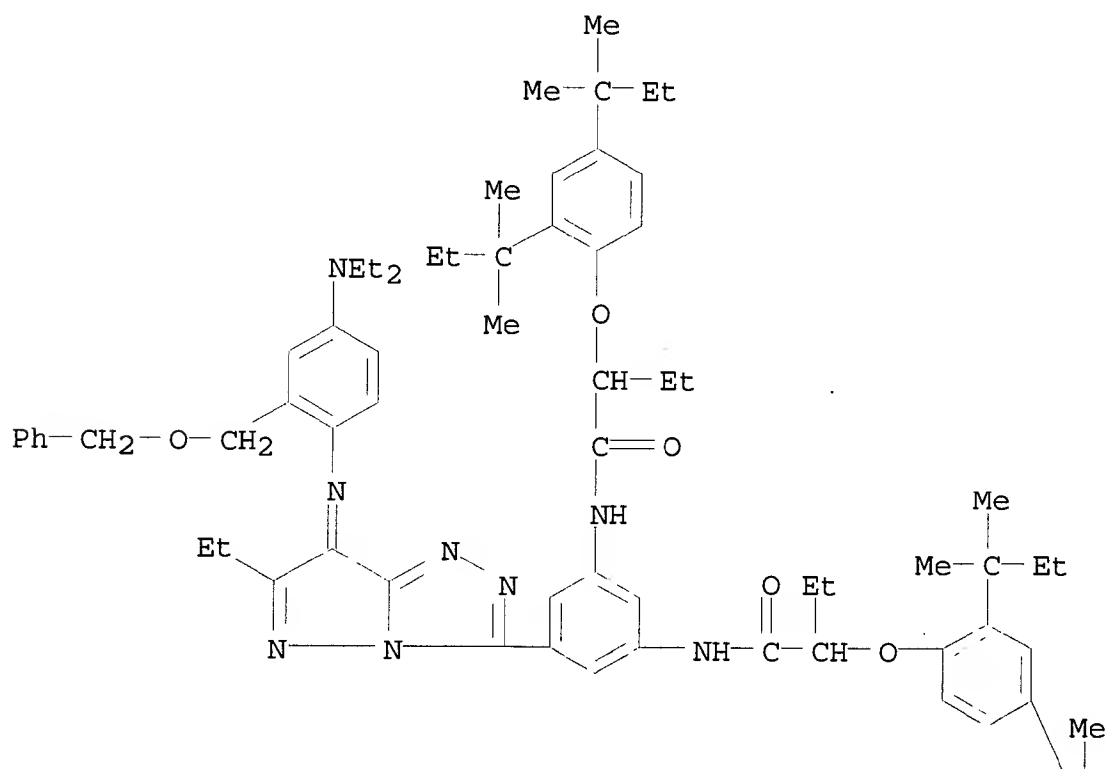


PAGE 1-B

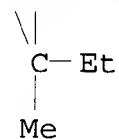


RN 358638-80-9 HCA
 CN Butanamide, N,N'-[5-[7-[[4-(diethylamino)-2-
 [(phenylmethoxy)methyl]phenyl]imino]-6-ethyl-7H-pyrazolo[5,1-c]-
 1,2,4-triazol-3-yl]-1,3-phenylene]bis[2-[2,4-bis(1,1-
 dimethylpropyl)phenoxy] - (9CI) (CA INDEX NAME)

PAGE 1-A

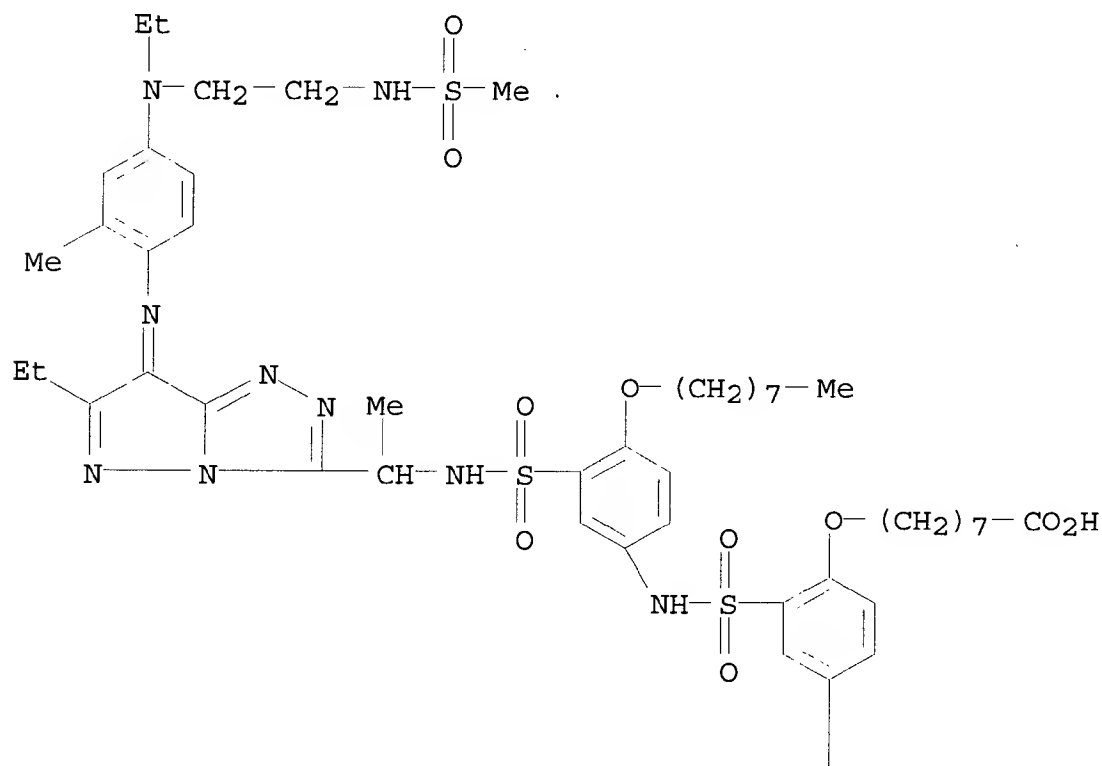


PAGE 2-A

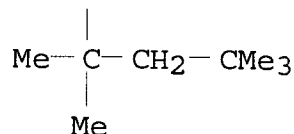


RN 358638-81-0 HCA
 CN Octanoic acid, 8-[2-[[[3-[[[1-[6-ethyl-7-[[4-[ethyl[2-
 [(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-
 pyrazolo[5,1-c]-1,2,4-triazol-3-yl]ethyl]amino]sulfonyl]-4-
 (octyloxy)phenyl]amino]sulfonyl]-4-(1,1,3,3-
 tetramethylbutyl)phenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A

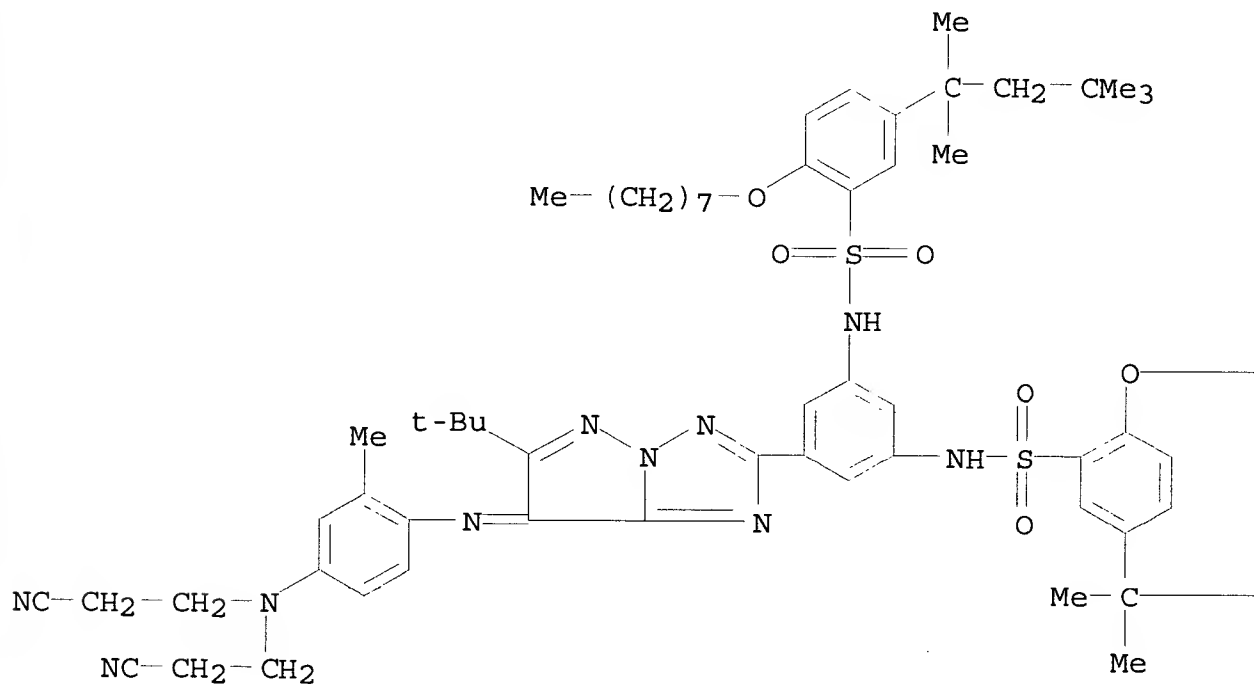


PAGE 2-A



RN 362497-25-4 HCA
 CN Benzenesulfonamide, N,N'-[5-[7-[[4-[bis(2-cyanoethyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)

PAGE 1-A

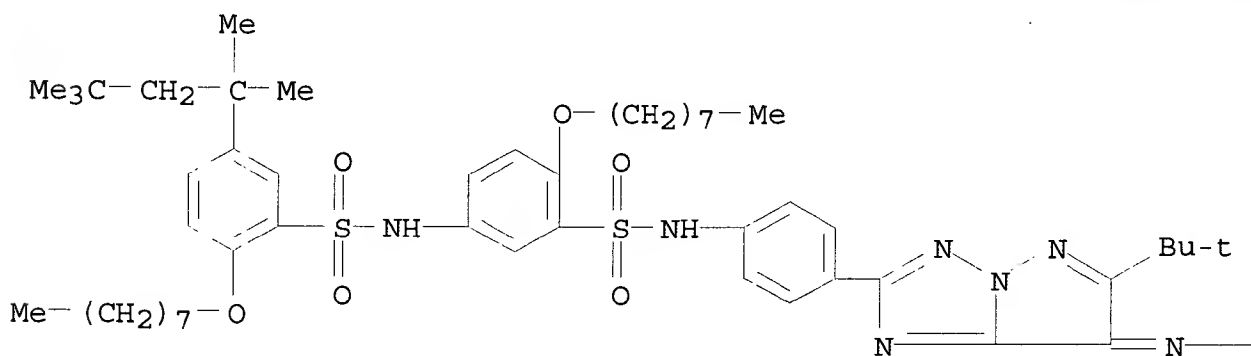


PAGE 1-B

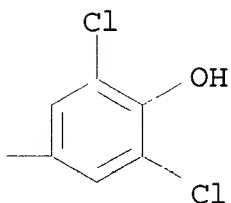
— (CH₂)₇—Me—CH₂—CMe₃

RN 362497-26-5 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

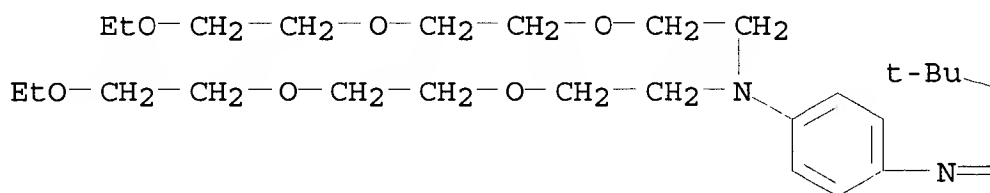


PAGE 1-B

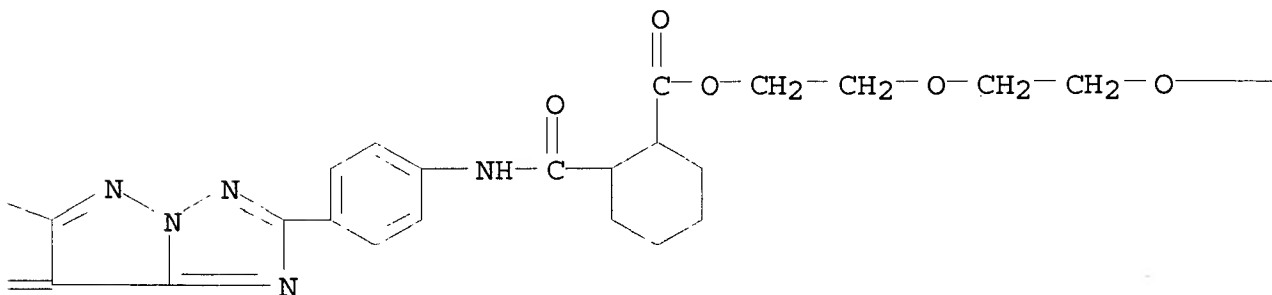


RN	362497-27-6	HCA
CN	Cyclohexanecarboxylic acid, 2-[[[4-[7-[[4-[bis[2-(2-(2-ethoxyethoxy)ethoxy)ethyl]amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, 2-[2-(2-ethoxyethoxy)ethoxy]ethyl ester (9CI) (CA INDEX NAME)	

PAGE 1-A



PAGE 1-B



PAGE 1-C

—CH₂—CH₂—OEt

IC ICM C09D017-00
ICS B41J002-01; B41M005-00; C09B055-00; C09B067-02; C09B067-46;
C09D011-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)
Section cross-reference(s): 42
ST **ink jet printing** color microparticle;
vinyl polymer dye ink
IT **Ink-jet printing**
(color microparticle dispersion for **ink-jet
printing ink**)
IT **Inks**
(**ink-jet printing**; color
microparticle dispersion for **ink-jet
printing ink**)
IT 9003-63-8, Butyl methacrylate homopolymer 9011-15-8, Polyisobutyl
methacrylate 25930-98-7, Acrylic acid-butyl methacrylate copolymer
26655-94-7, Polyisopropyl methacrylate 26898-31-7, Acrylic
acid-butyl methacrylate-methyl methacrylate copolymer 29324-52-5,
Tetrahydrofurfuryl acrylate homopolymer 214461-34-4, Isobutyl
methacrylate-tetrahydrofurfuryl acrylate copolymer
(color microparticle dispersion for **ink-jet
printing ink**)
IT 346709-26-0 355841-72-4 **358342-81-1 358342-91-3**
358638-80-9 358638-81-0 362497-25-4
362497-26-5 362497-27-6 362497-28-7
(oil-sol. dye; color microparticle dispersion for **ink-
jet printing ink**)

L11 ANSWER 13 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 135:212445 HCA

TITLE: The coloring composition of **ink-
jet inks**

INVENTOR(S): Yamanouchi, Junichi; Kimura, Keizo; Ishizuka,
Takahiro

PATENT ASSIGNEE(S): Japan

SOURCE: U.S. Pat. Appl. Publ., 38 pp.

CODEN: USXXCO

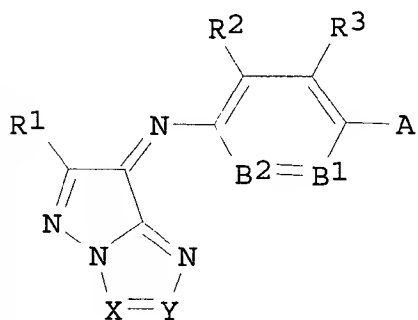
DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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US 2001020056	A1	20010906	US 2001-780402	20010212
JP 2001302932	A2	20011031	JP 2000-266964	20000904
PRIORITY APPLN. INFO.:			JP 2000-36547	A 20000215
			JP 2000-266964	A 20000904
OTHER SOURCE(S):		MARPAT 135:212445		
GI				



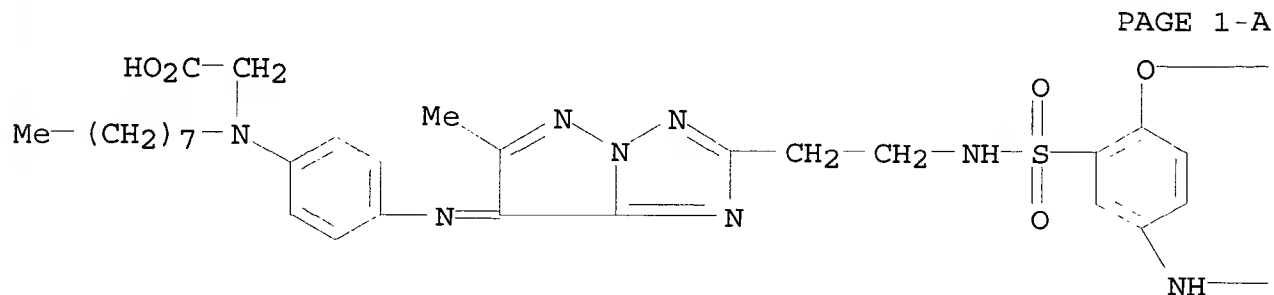
I

AB The coloring compn. of an **ink-jet ink** comprises (a) a dispersion medium; (b) a polymer selected from the group consisting of polyurethanes, polyesters, polyamides, polyureas and polycarbonates, and coloring particulates contg. an oil-sol. dye represented by formula (I), wherein formula (I) satisfies .gtoreq.1 of the following (i)-(v): (i) A represents -NR₄R₅, R₄ and R₅ each represents independently a C1-18 alkyl group having a substituent group; (ii) .gtoreq.1 of R₂ and R₇ represents a substituted alkyl group; (iii) R₈ represents an aryl group having .gtoreq.2 substituent groups; (iv) .gtoreq.2 substituent groups represented by -NR₁₇SO₂R₁₇ are present in the mol.; and (v) .gtoreq.1 carboxyl groups are present in the mol.

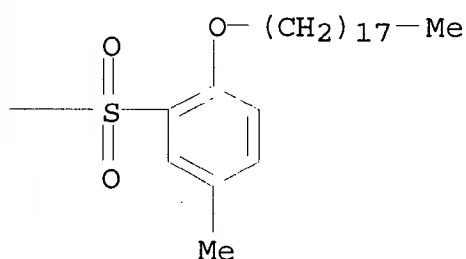
IT **358342-89-9P**
(the coloring compn. of **ink-jet inks**)

RN 358342-89-9 HCA

CN Glycine, N-[4-[[6-methyl-2-[2-[[[5-[[[5-methyl-2-(octadecyloxy)phenyl]sulfonyl]amino]-2-(octadecyloxy)phenyl]sulfonyl]amino]ethyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]-N-octyl- (9CI) (CA INDEX NAME)



PAGE 1-B

— (CH₂)₁₇—Me

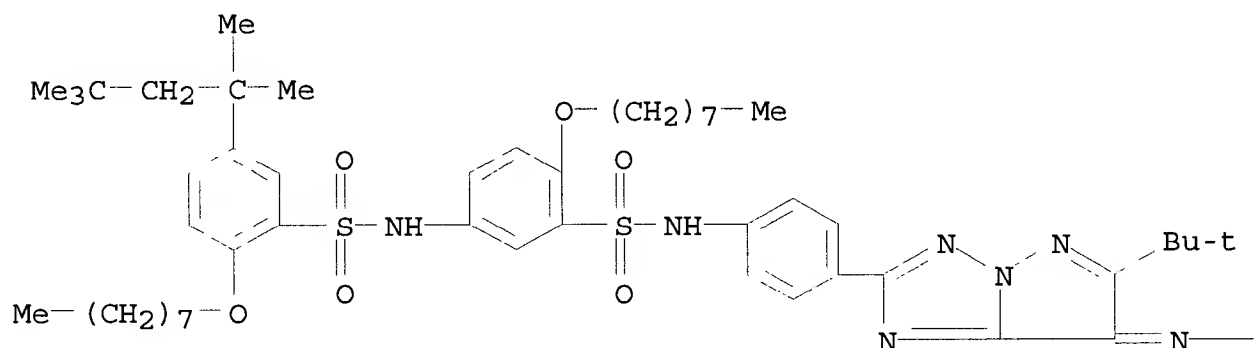
IT 358342-81-1P 358342-83-3P 358342-85-5P
358342-86-6P

(the coloring compn. of ink-jet inks
)

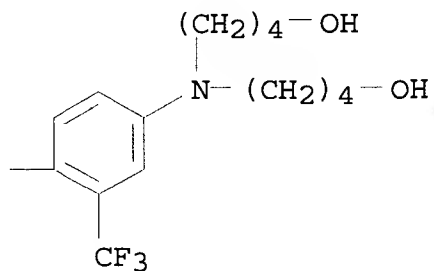
RN 358342-81-1 HCA

CN Benzenesulfonamide, N-[3-[[[4-[7-[[4-[bis(4-hydroxybutyl)amino]-2-(trifluoromethyl)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)

PAGE 1-A

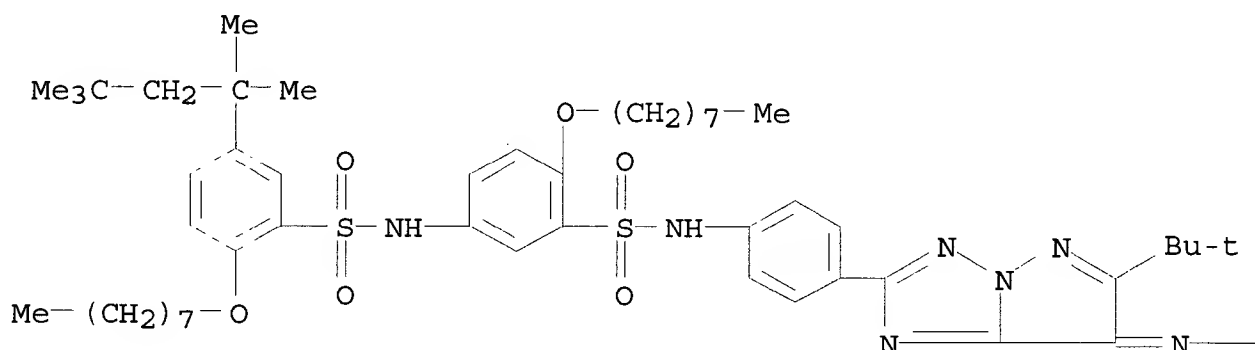


PAGE 1-B

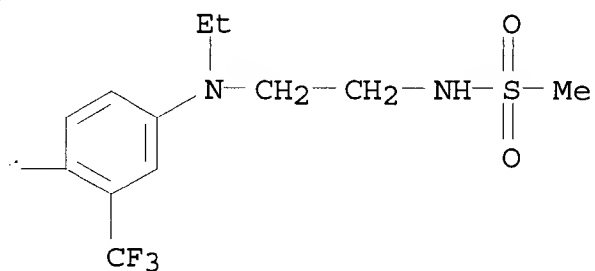


RN 358342-83-3 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-
 [(methylsulfonyl)amino]ethyl]amino]-2-(trifluoromethyl)phenyl]imino]-
 7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-
 (octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
 (CA INDEX NAME)

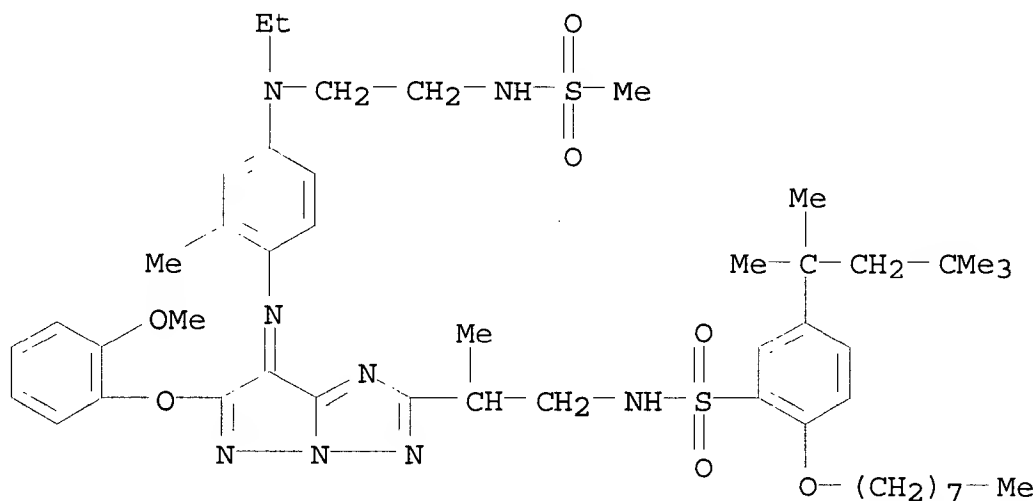
PAGE 1-A



PAGE 1-B

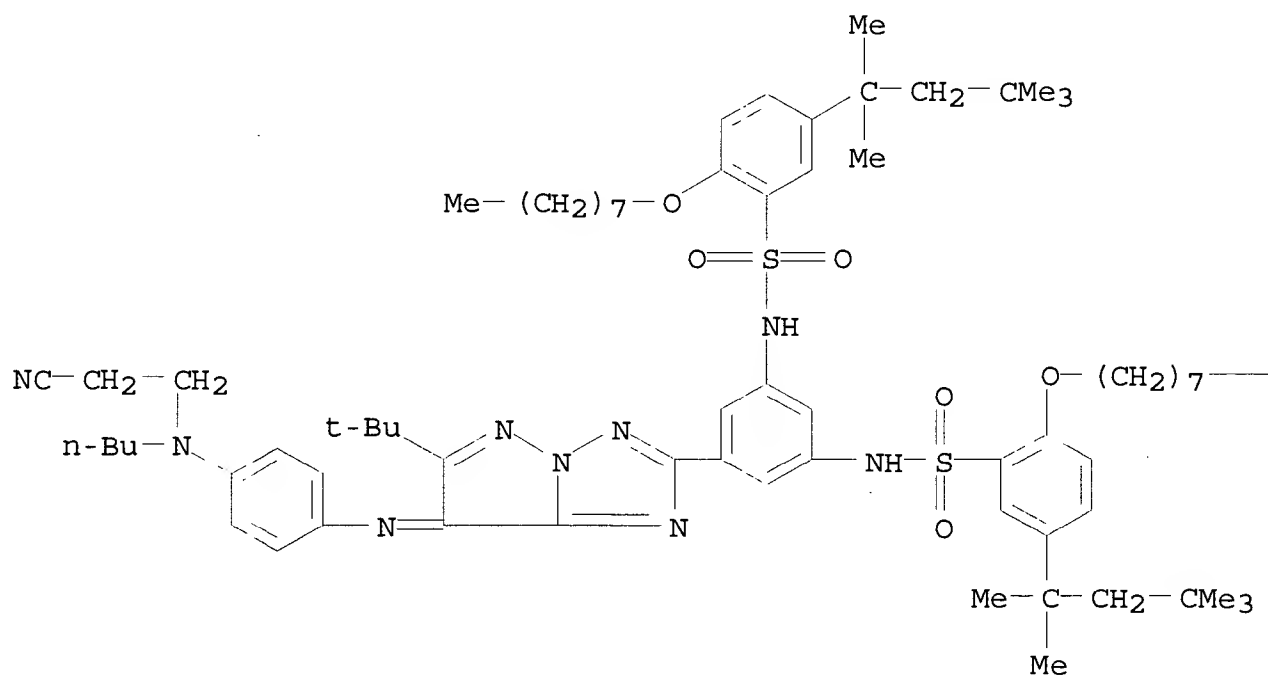


RN 358342-85-5 HCA
 CN Benzenesulfonamide, N-[2-[7-[[4-[ethyl[2-
 [(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-6-(2-
 methoxyphenoxy)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2-
 (octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)



RN 358342-86-6 HCA
 CN Benzenesulfonamide, N,N'-[5-[7-[[4-[butyl(2-cyanoethyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)

PAGE 1-A



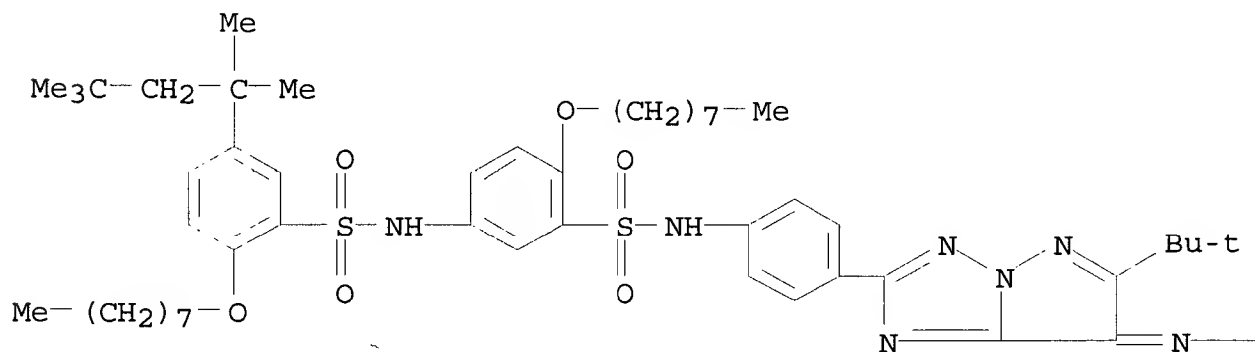
PAGE 1-B

— Me

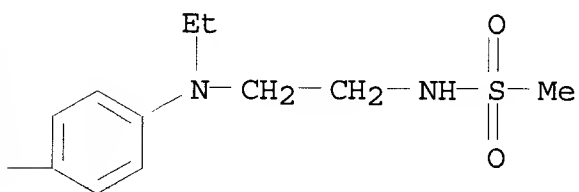
IT 358342-90-2 358342-91-3 358342-92-4
 358342-93-5
 (the coloring compn. of ink-jet inks
)

RN 358342-90-2 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-
 [(methylsulfonyl)amino]ethyl]amino]phenyl]imino]-7H-pyrazolo[1,5-
 b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-
 (octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



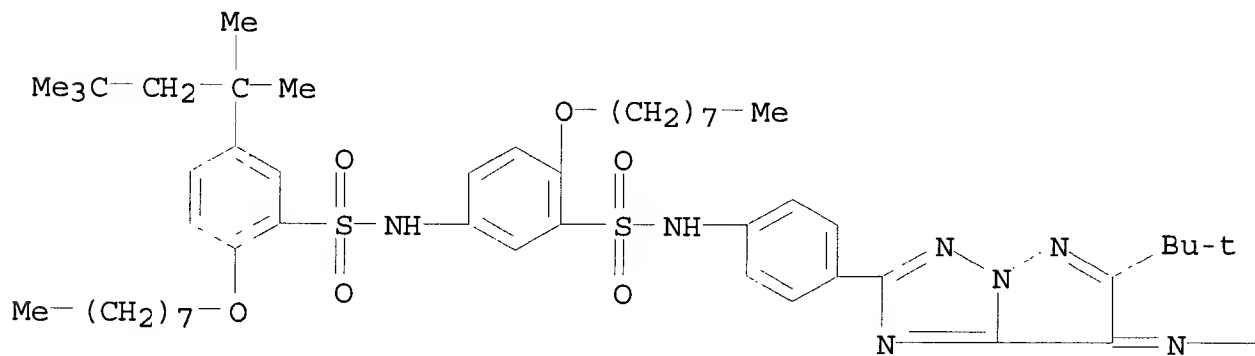
PAGE 1-B



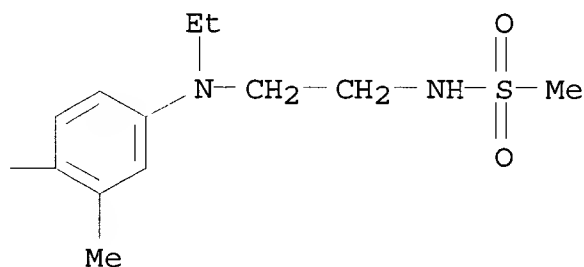
RN 358342-91-3 HCA

CN Benzenesulfonamide, N-[3-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI)
(CA INDEX NAME)

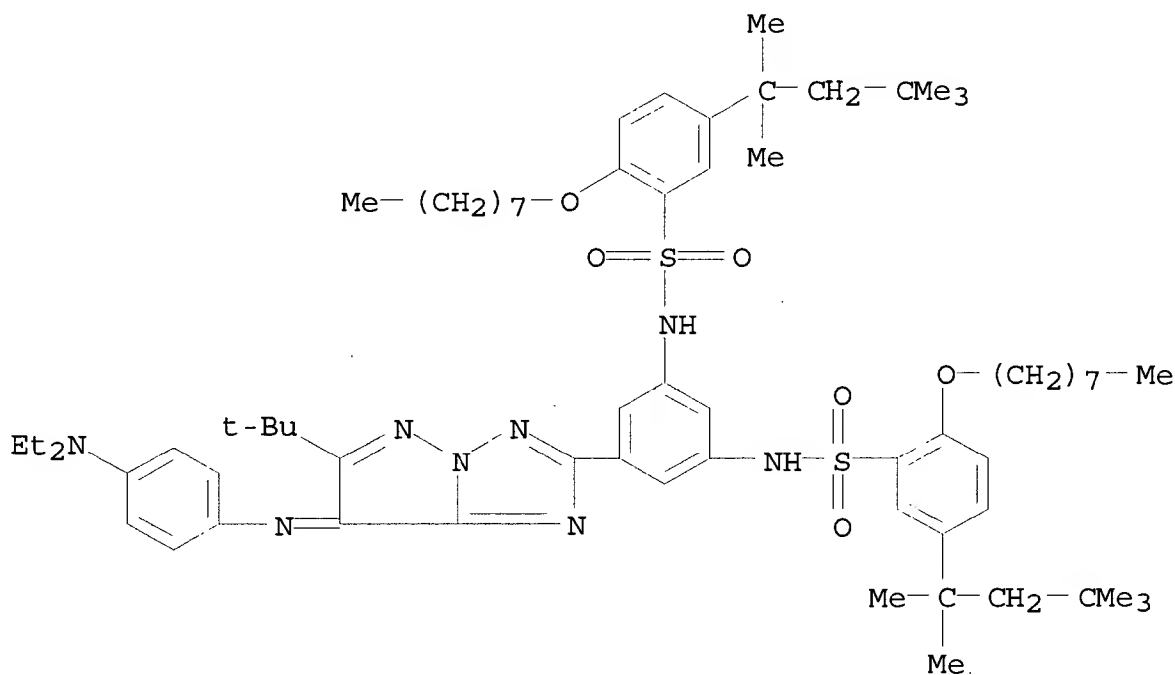
PAGE 1-A



PAGE 1-B



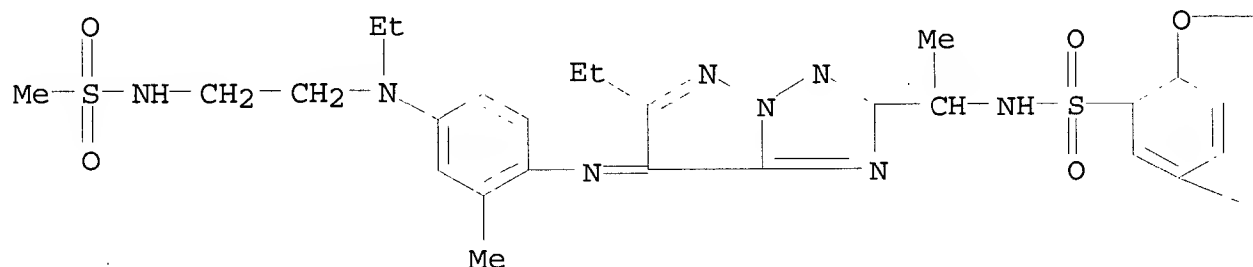
RN 358342-92-4 HCA
 CN Benzenesulfonamide, N,N'-[5-[7-[4-(diethylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)



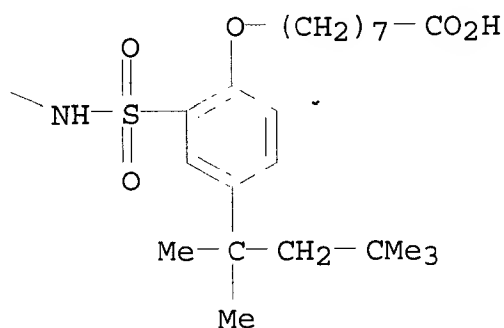
RN 358342-93-5 HCA
 CN Octanoic acid, 8-[2-[[[3-[[[1-[6-ethyl-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]ethyl]amino]sulfonyl]-4-(octyloxy)phenyl]amino]sulfonyl]-4-(1,1,3,3-

tetramethylbutyl)phenoxy] - (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH₂)₇—Me

IC ICM C09D005-00
ICS C08K005-34
NCL 523161000
CC 42-12 (Coatings, Inks, and Related Products)
ST **inkjet** ink coloring compn polymer dye
IT **Inks**
(**jet-printing**, water-thinned; the coloring compn. of **ink-jet inks**)
IT Polyamides, uses
Polycarbonates, uses
Polyesters, uses
Polyureas
Polyurethanes, uses
(the coloring compn. of **ink-jet inks**)
IT 79729-25-2P, Dimethyl terephthalate-dimethyl isophthalate-sodium
5-sulfoisophthalate-ethylene glycol-neopentyl glycol copolymer
355841-67-7P, 4,4'-Diphenyl methane diisocyanate-hexamethylene

diisocyanate-tetraethylene glycol-ethylene glycol-2,2-bis(hydroxymethyl) propionic acid copolymer
(the coloring compn. of **ink-jet inks**)

IT 358342-89-9P

(the coloring compn. of **ink-jet inks**)

IT 358342-81-1P 358342-83-3P 358342-85-5P
358342-86-6P

(the coloring compn. of **ink-jet inks**)

IT 128-08-5, N-Bromosuccinimide 56046-62-9 244763-66-4
292833-44-4 358342-79-7 358342-80-0 358342-82-2 358342-84-4
358342-87-7 358342-88-8

(the coloring compn. of **ink-jet inks**)

IT 358342-90-2 358342-91-3 358342-92-4
358342-93-5

(the coloring compn. of **ink-jet inks**)

L11 ANSWER 14 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 135:212295 HCA

TITLE: Colorant particle dispersions for **ink-jet inks** and method of recording

INVENTOR(S): Kimura, Keizo; Ishizuka, Takahiro; Yamada, Masato

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 64 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

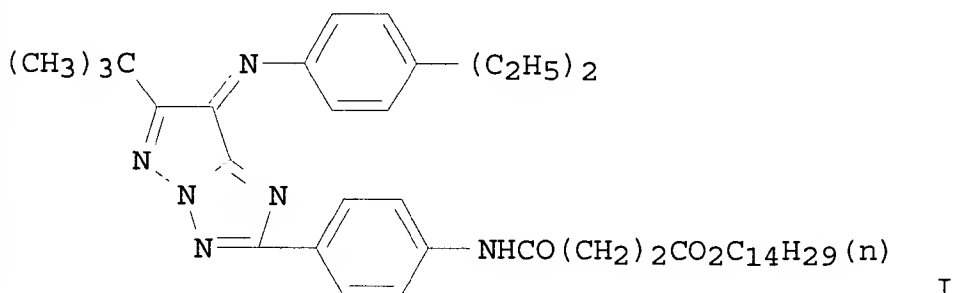
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001240763	A2	20010904	JP 2000-78491	20000321
US 2001023267	A1	20010920	US 2000-740927	20001221
PRIORITY APPLN. INFO.:			JP 1999-365187	A 19991222
			JP 2000-78491	A 20000321

OTHER SOURCE(S): MARPAT 135:212295

GI



AB The dispersions contain particles which comprise oil-sol. dyes of specific phenyliminopyrazolotriazole like compds. and oil-sol. polymers in an aq. medium and have absorption max. (λ_{max}) at 510-560 nm, absorbancy at $\lambda_{\text{max}}+75$ nm of <0.2 and absorbancy at $\lambda_{\text{max}}-75$ nm of <0.4 when assuming the absorbancy for λ_{max} as 1. Recording images using the inks have good light and water resistance. Thus, mixing i-PrOH 10 with an acrylic acid-Bu methacrylate-1H,1H,2H,2H-perfluorodecyl acrylate copolymer 9.1 and I (prepn. given) 0.8 with a 2 mol/L aq. soln. of NaOH 2.3 parts, heating to 80.degree., adding 50 parts water and condensing to 20% solids content gave a colorant dispersion for use in an ink contg. other ingredients.

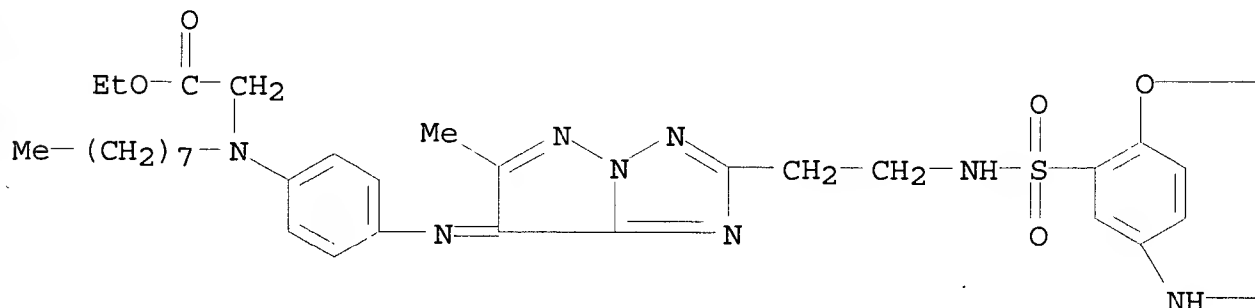
IT 358638-86-5P

(intermediate; colorant particle dispersions for **ink-jet inks** and method of recording)

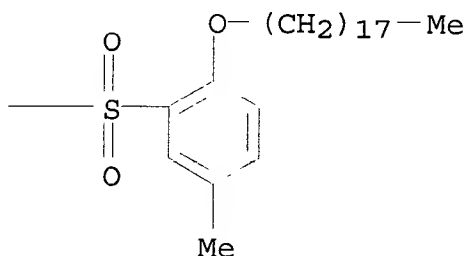
RN 358638-86-5 HCA

CN Glycine, N-[4-[[6-methyl-2-[2-[[[5-[[[5-methyl-2-(octadecyloxy)phenyl]sulfonyl]amino]-2-(octadecyloxy)phenyl]sulfonyl]amino]ethyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]aminolphenyl]-N-octyl-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— (CH₂)₁₇—Me

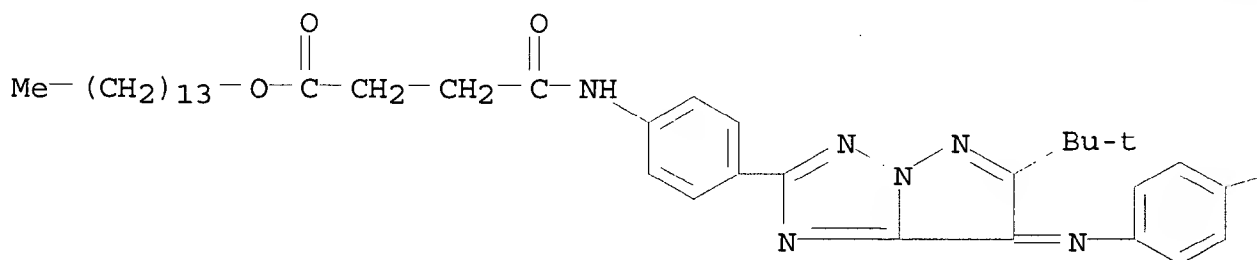
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(oil-sol. dyes; colorant particle dispersions for ink-jet inks and method of recording)

RN 292833-36-4 HCA

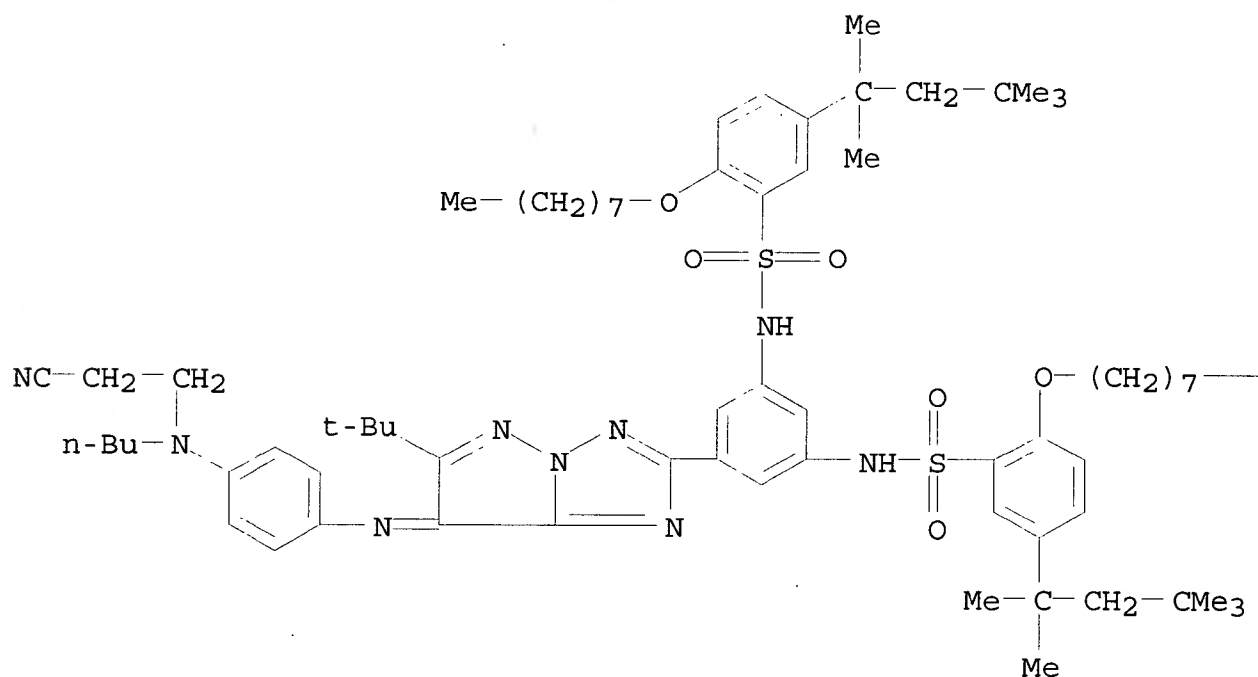
CN Butanoic acid, 4-[[4-[7-[[4-[butyl(2-cyanoethyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]-4-oxo-, tetradecyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



RN 358342-86-6 HCA
 CN Benzenesulfonamide, N,N'-[5-[7-[[4-[butyl(2-cyanoethyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

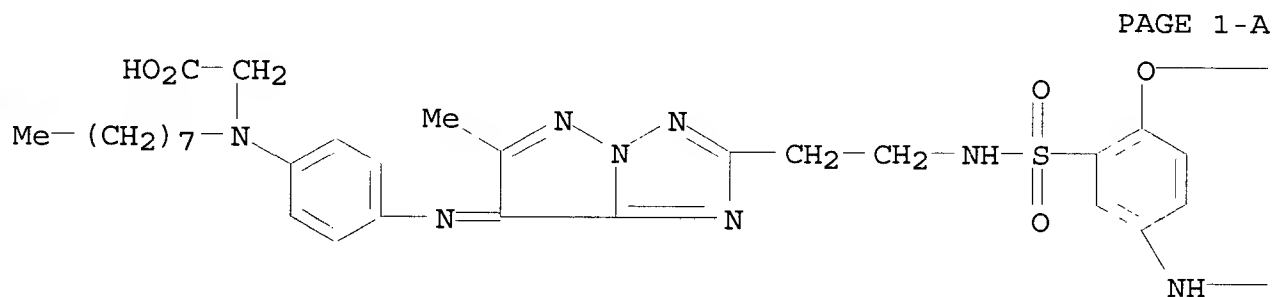
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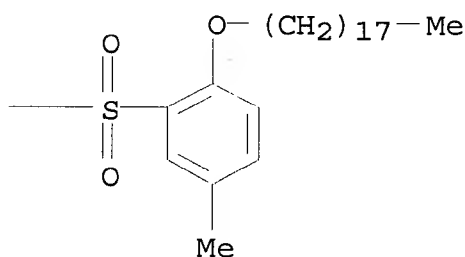
PAGE 1-B

— Me

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 CN Glycine, N-[4-[[6-methyl-2-[2-[[[5-[[[5-methyl-2-(octadecyloxy)phenyl]sulfonyl]amino]-2-(octadecyloxy)phenyl]sulfonyl]amino]ethyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]-N-octyl- (9CI) (CA INDEX NAME)

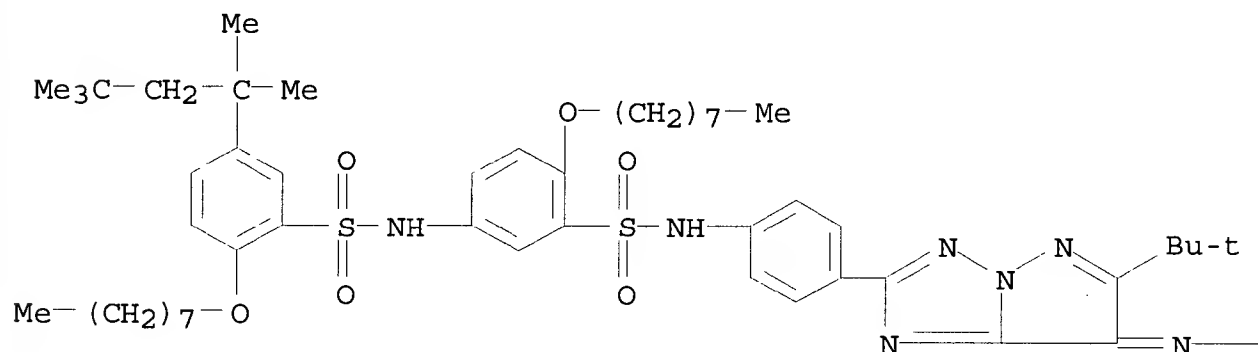


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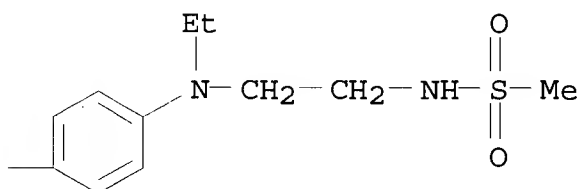
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PAGE 1-A

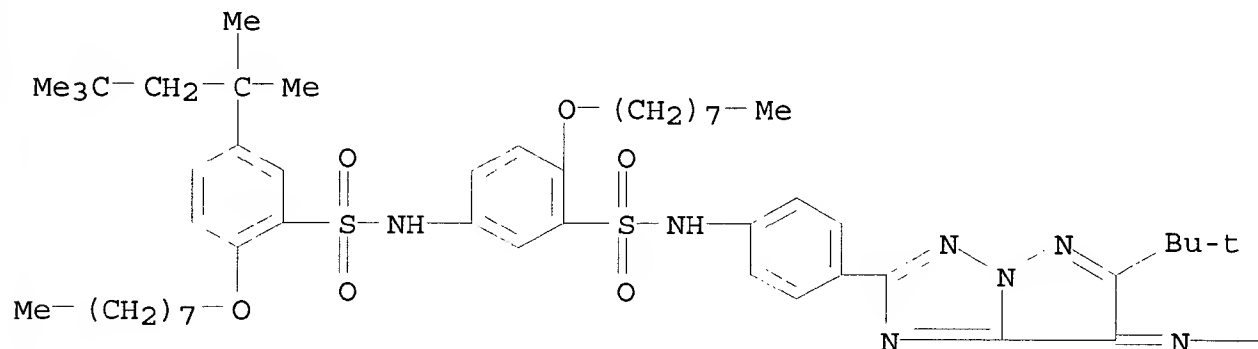


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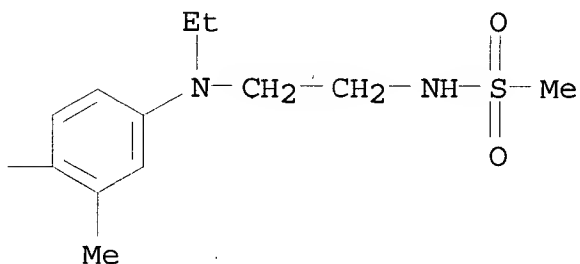


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 pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-
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 (CA INDEX NAME)

PAGE 1-A

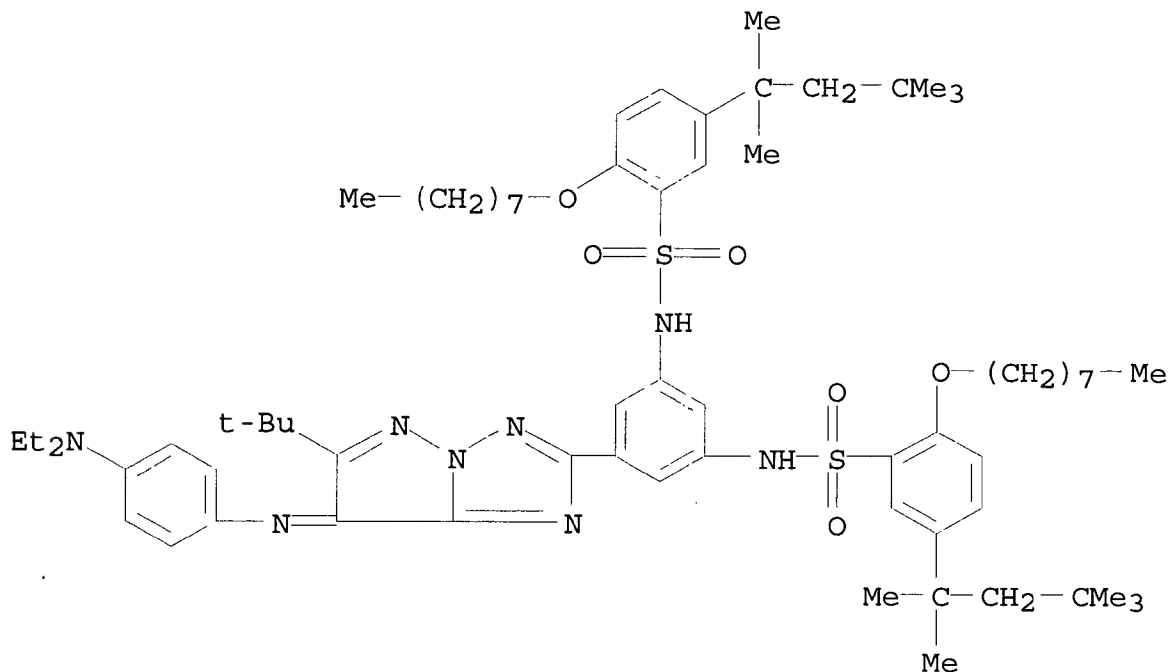


PAGE 1-B



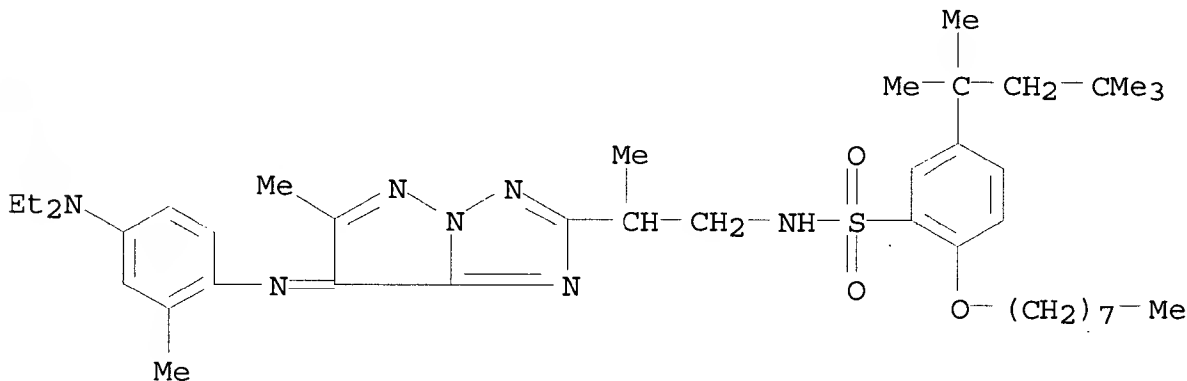
RN 358342-92-4 HCA

CN Benzenesulfonamide, N,N'-[5-[7-[[4-(diethylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-1,3-phenylene]bis[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)



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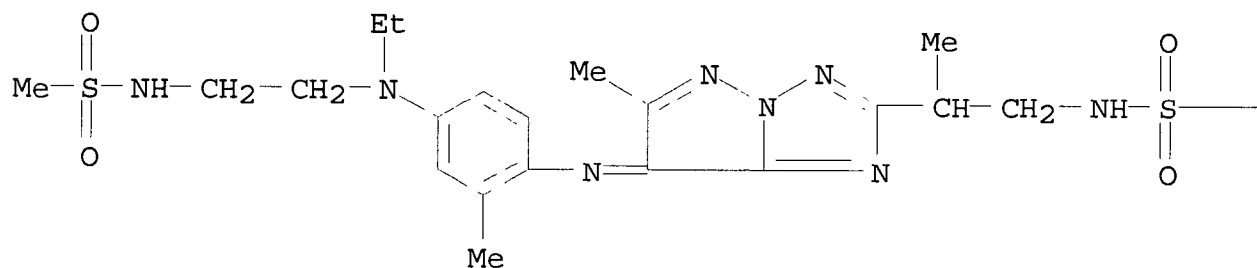
CN Benzenesulfonamide, N-[2-[7-[[4-(diethylamino)-2-methylphenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)



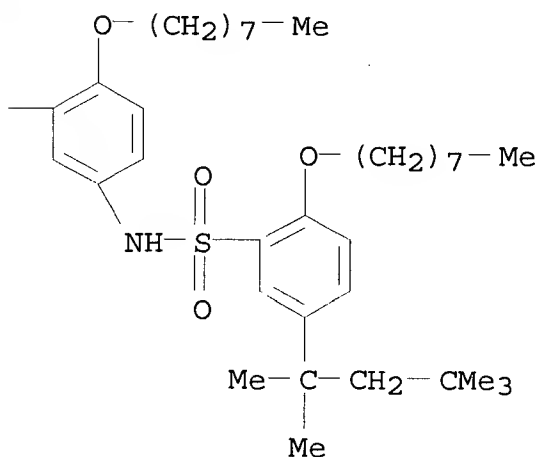
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CN Benzenesulfonamide, N-[3-[[[2-[7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]amino]sulfonyl]-4-(octyloxy)phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

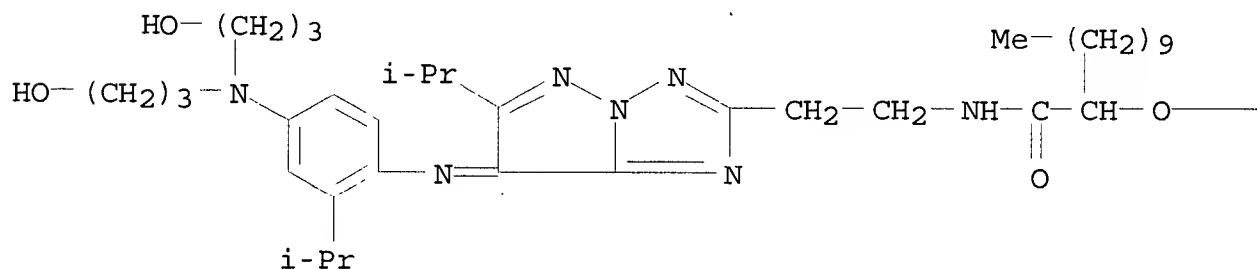


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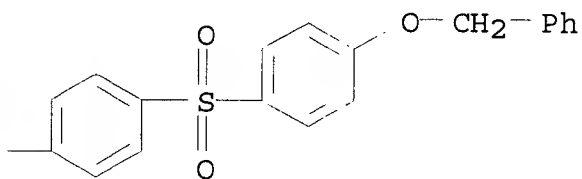


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 CN Dodecanamide, N-[2-[7-[[4-[bis(3-hydroxypropyl) amino]-2-(1-methylethyl)phenyl]imino]-6-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]ethyl]-2-[4-[[4-(phenylmethoxy)phenyl]sulfonyl]phenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A

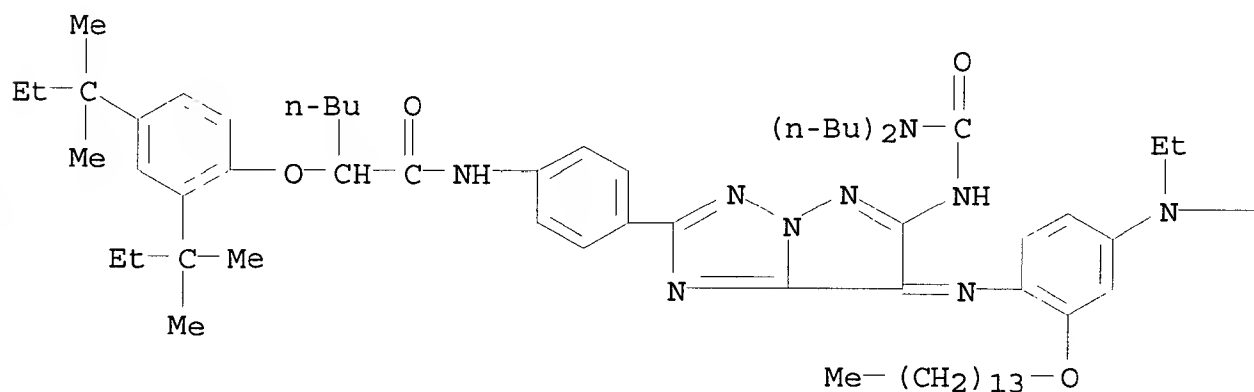


PAGE 1-B

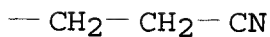


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 CN Hexanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[4-[7-[[4-[(2-cyanoethyl)ethylamino]-2-(tetradecyloxy)phenyl]imino]-6-[[[(dibutylamino)carbonyl]amino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

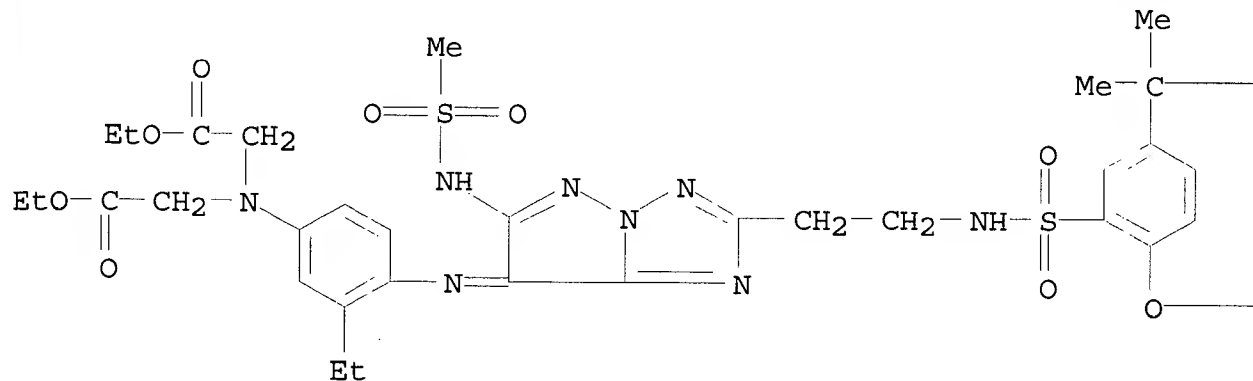


PAGE 1-B



RN 358638-63-8 HCA
 CN Glycine, N-[4-[[2-[2-[[[2-[2-[2-(2-ethoxyethoxy)ethoxy]ethoxy]-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]ethyl]-6-[(methylsulfonyl)amino]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-ethylphenyl]-N-(2-ethoxy-2-oxoethyl)-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



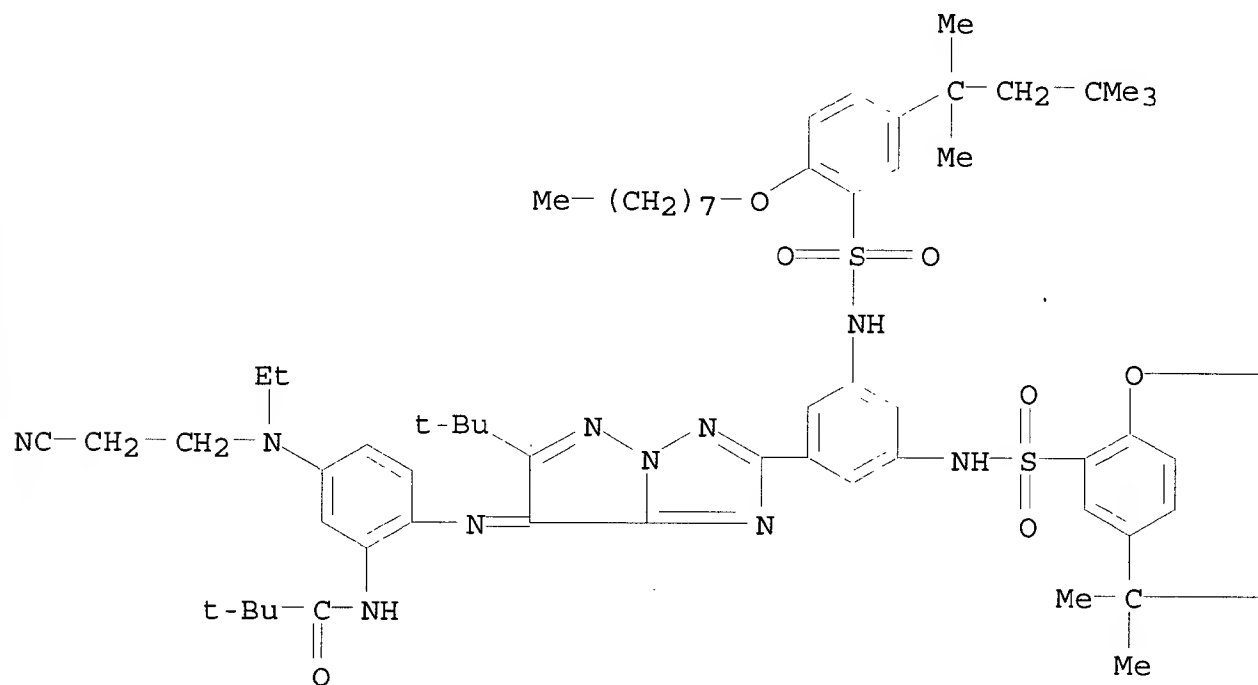
PAGE 1-B

— CH₂— CMe₃— CH₂— CH₂— O— CH₂— CH₂— O— CH₂— CH₂— OEt

RN 358638-64-9 HCA

CN Propanamide, N-[2-[[2-[3,5-bis[[[2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)phenyl]sulfonyl]amino]phenyl]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-5-[(2-cyanoethyl)ethylamino]phenyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

PAGE 1-A

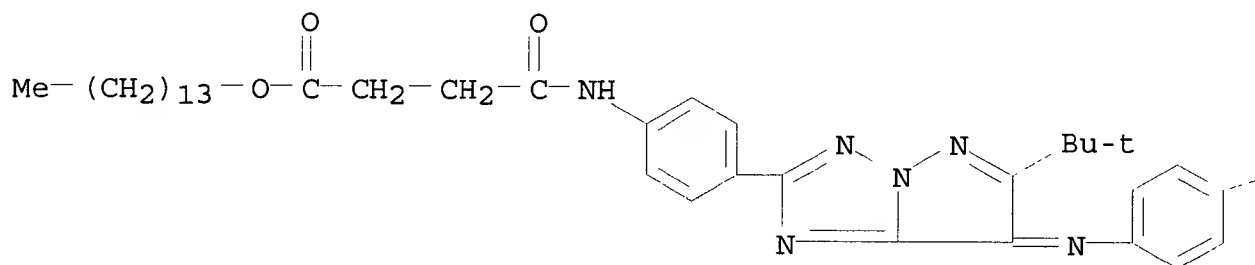


PAGE 1-B

— (CH₂)₇— Me— CH₂— CMe₃

RN 358638-65-0 HCA
 CN Butanoic acid, 4-[[4-[7-[[4-(diethylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]-4-oxo-, tetradecyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

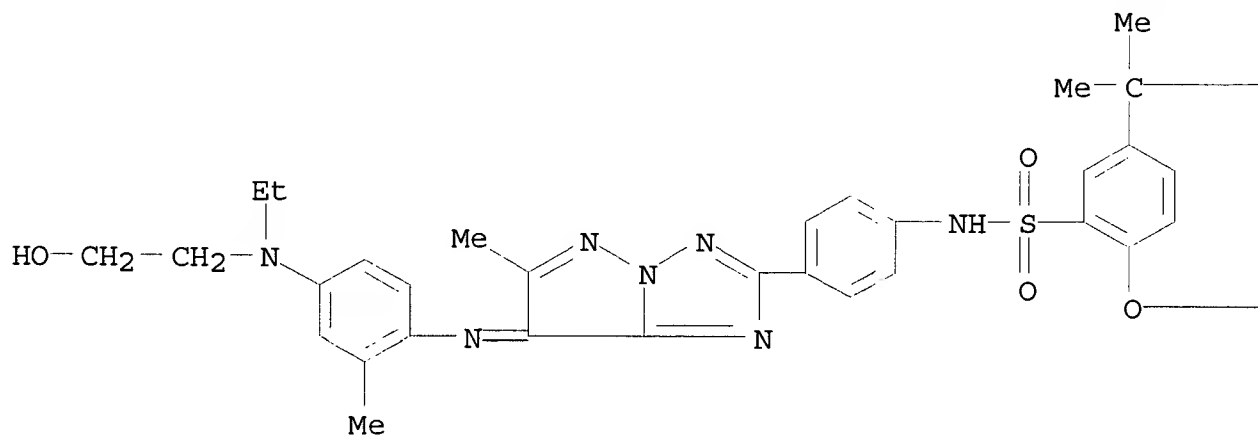


PAGE 1-B

NET₂

RN 358638-66-1 HCA
 CN Benzenesulfonamide, N-[4-[7-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]-2-(octadecyloxy)-5-(1,1,3,3-tetramethylbutyl)- (9CI) (CA INDEX NAME)

PAGE 1-A

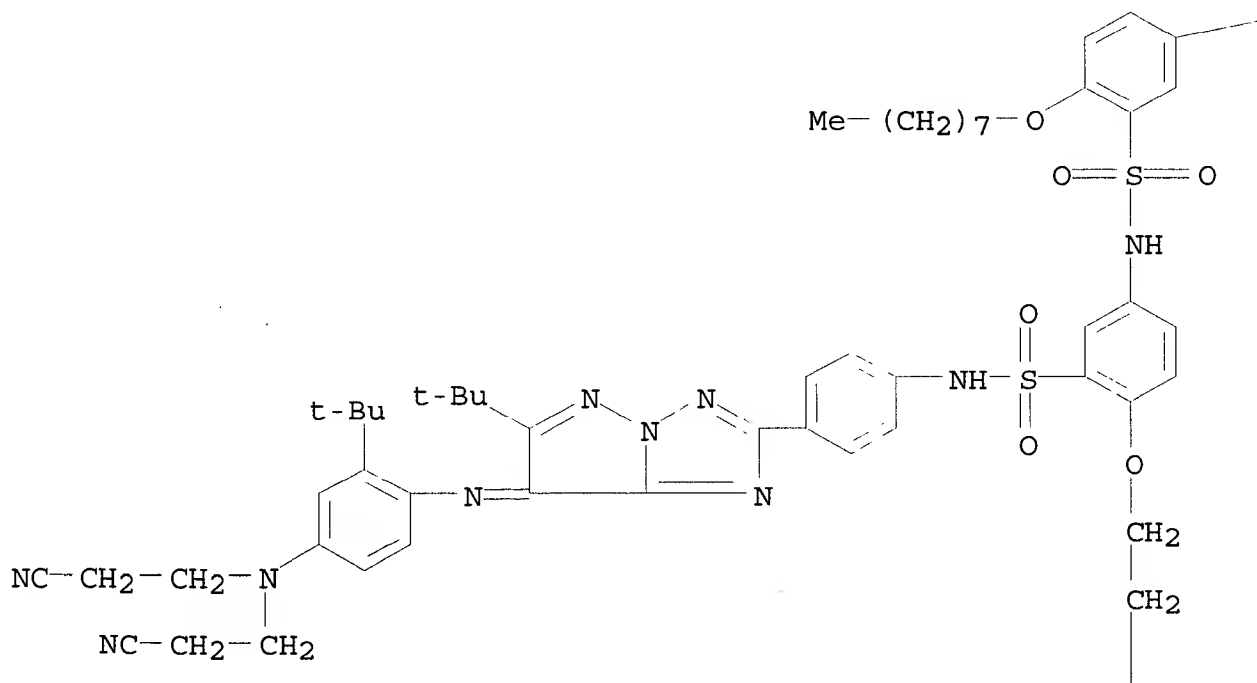


PAGE 1-B

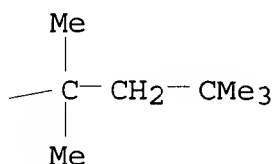
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RN 358638-67-2 HCA
 CN Benzenesulfonamide, N-[3-[[[4-[7-[[4-[bis(2-cyanoethyl)amino]-2-(1,1-dimethylethyl)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-[2-(4-methoxyphenoxy)ethoxy]phenyl]-2-(octyloxy)-5-(1,1,3,3-tetramethylbutyl)-(9CI) (CA INDEX NAME)

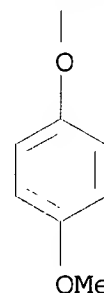
PAGE 1-A



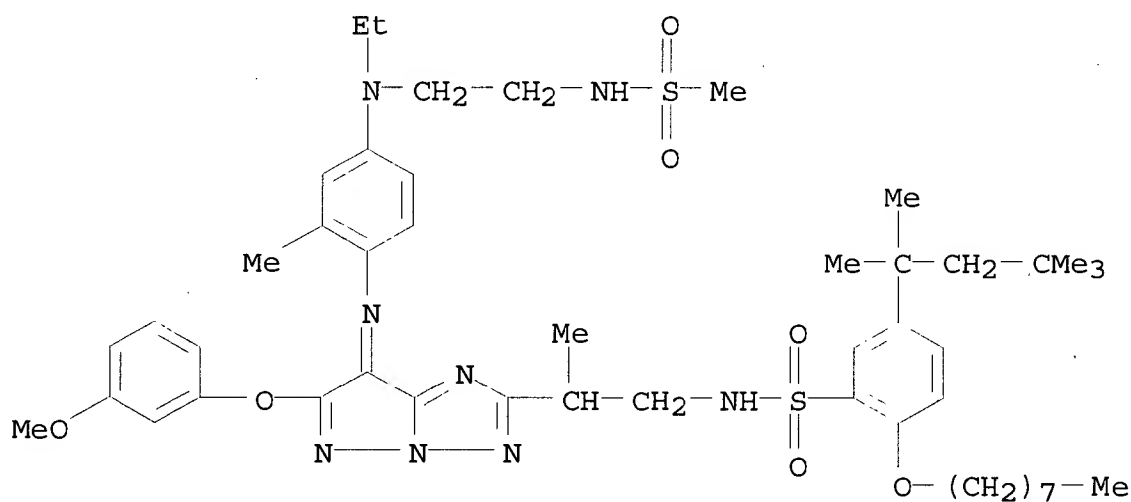
PAGE 1-B



PAGE 2-A



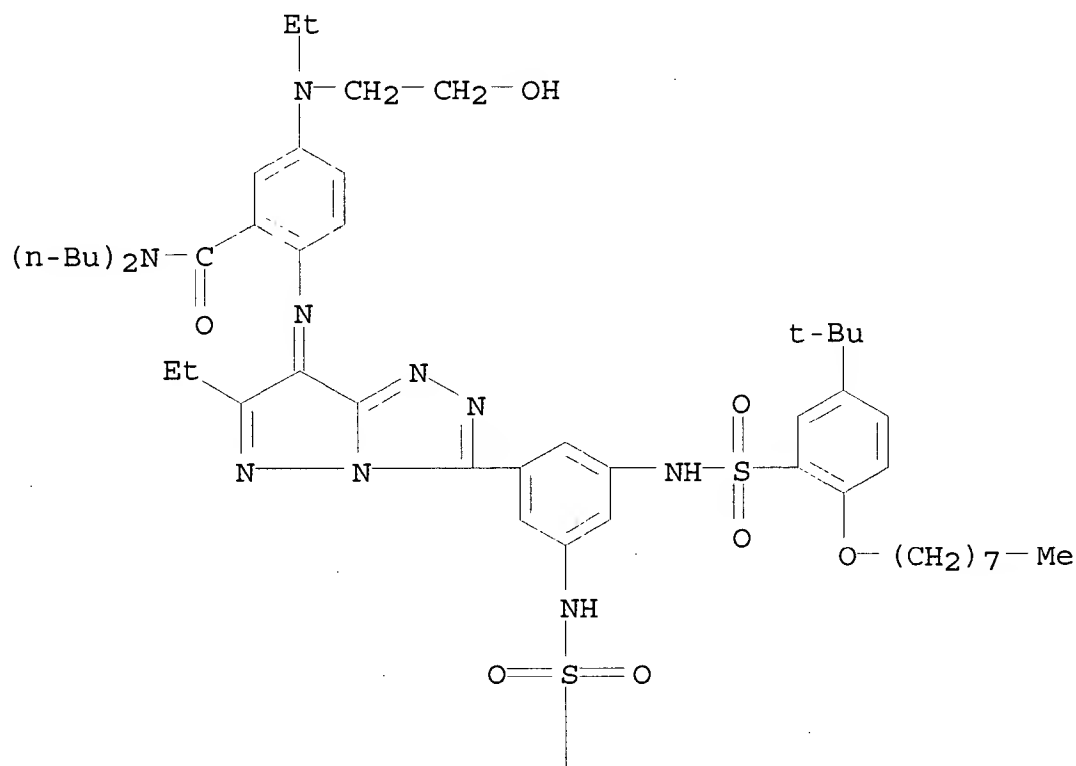
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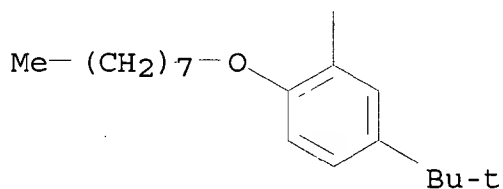
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PAGE 1-A

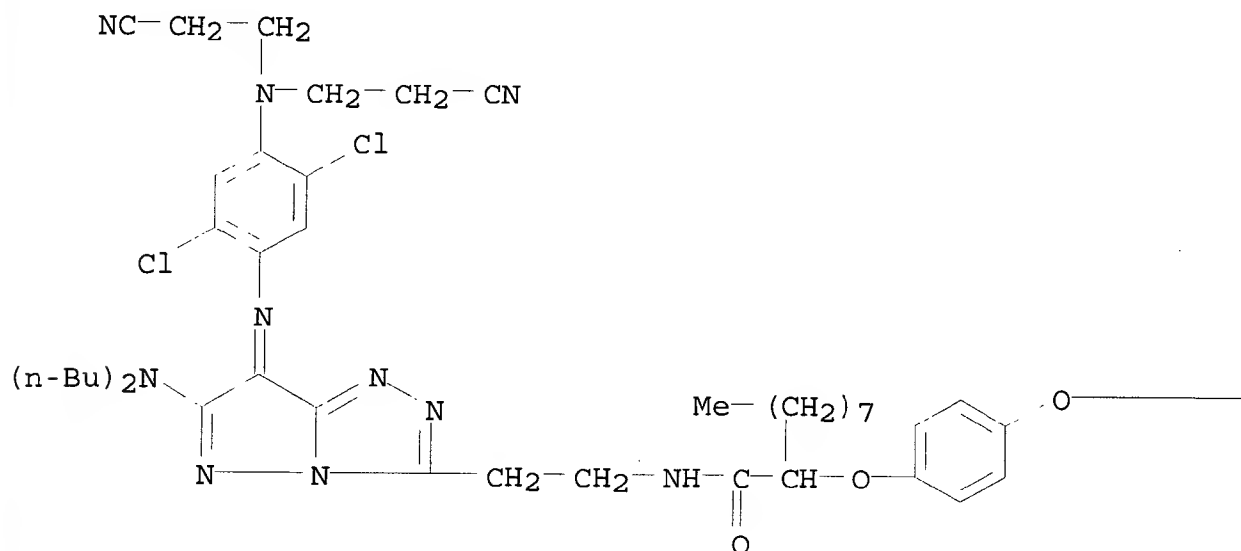


PAGE 2-A



RN 358638-70-7 HCA
 CN Decanamide, N-[2-[7-[[4-[bis(2-cyanoethyl)amino]-2,5-dichlorophenyl]imino]-6-(dibutylamino)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]ethyl]-2-[4-(octyloxy)phenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A

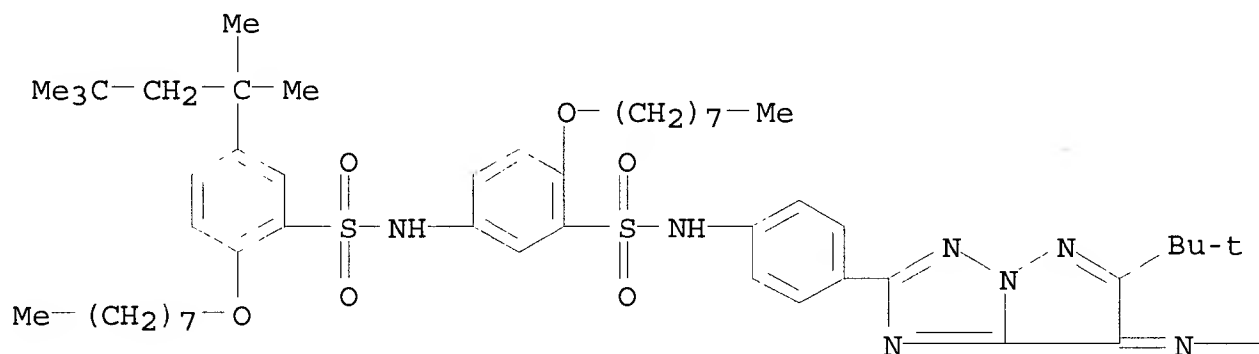


PAGE 1-B

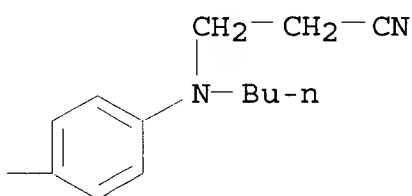
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RN 358638-71-8 HCA
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PAGE 1-A

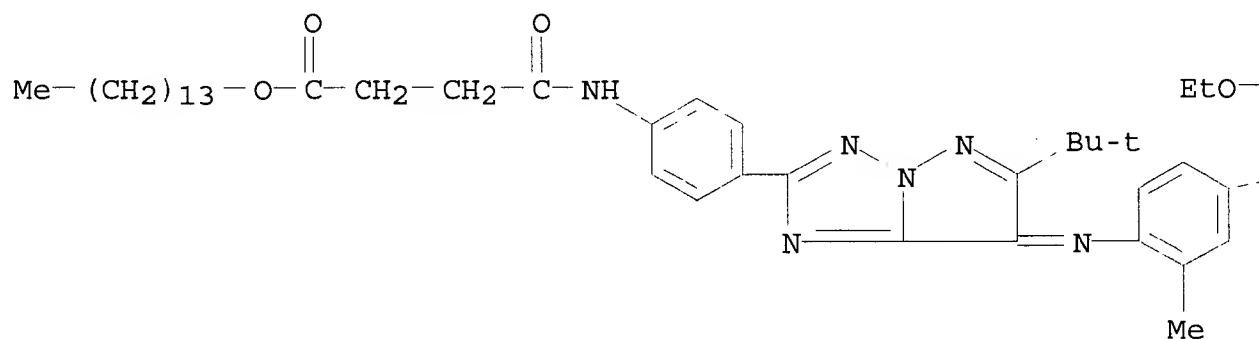


PAGE 1-B

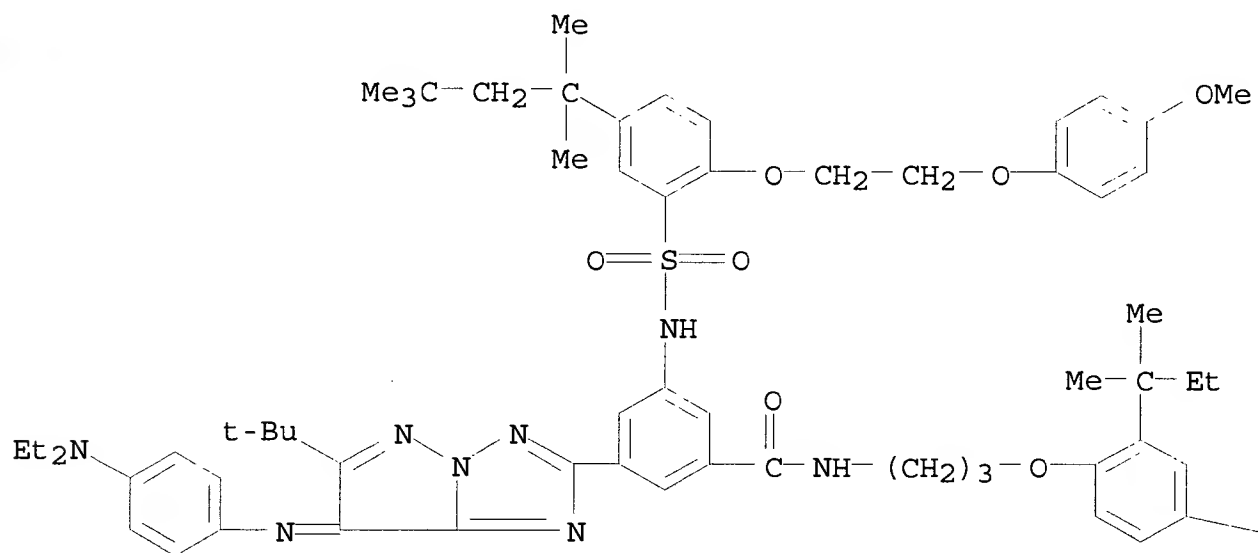


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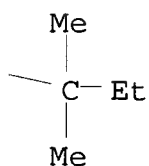
PAGE 1-A



PAGE 1-A



PAGE 1-B



RN 358638-76-3 HCA
 CN Propanamide, 2-[2-[[[4-[7-[[4-(diethylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]sulfonyl]-4-(1,1,3,3-tetramethylbutyl)phenoxy]-N-

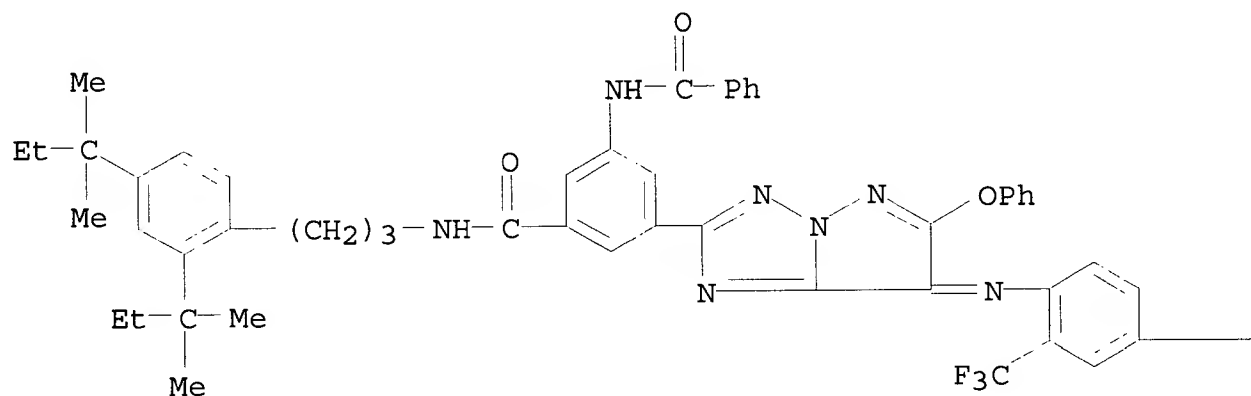
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PAGE 1-B

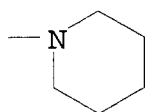
— Et

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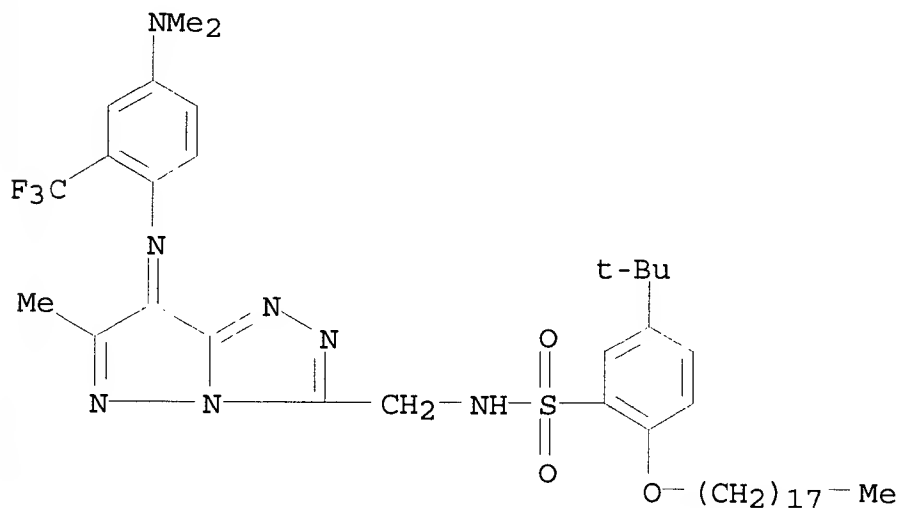
PAGE 1-A



PAGE 1-B

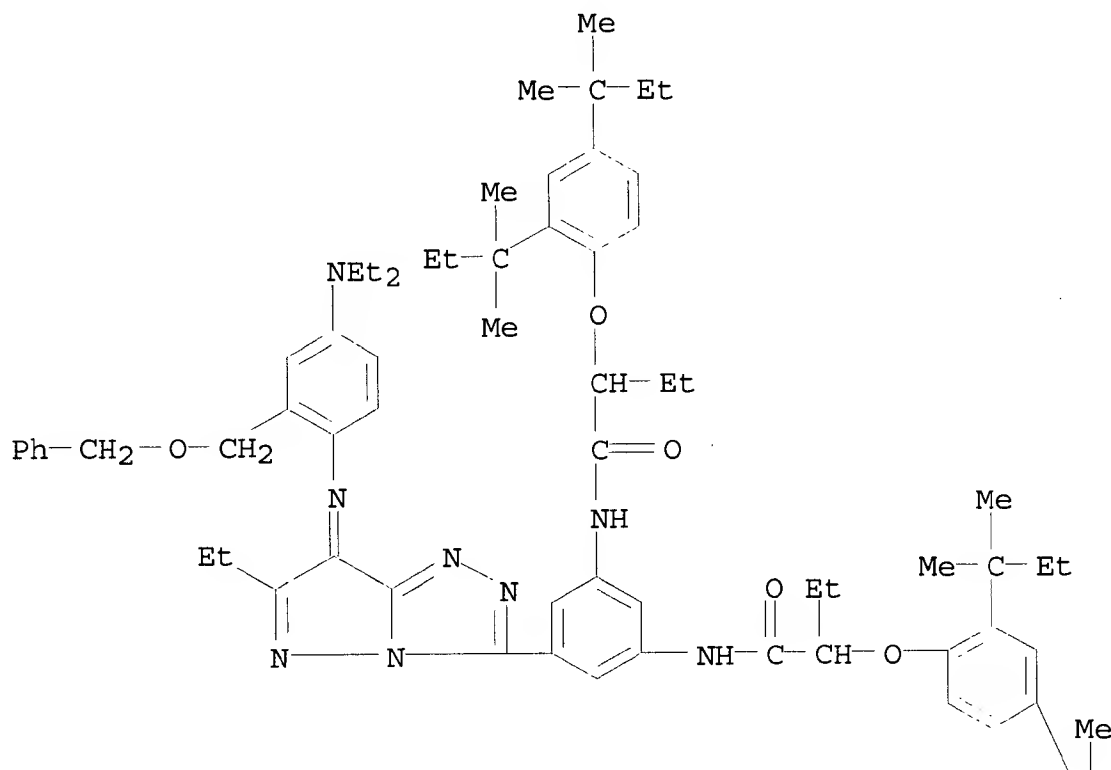


RN 358638-79-6 HCA
 CN Benzenesulfonamide, N-[[7-[[4-(dimethylamino)-2-(trifluoromethyl)phenyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]methyl]-5-(1,1-dimethylethyl)-2-(octadecyloxy) - (9CI)
 (CA INDEX NAME)

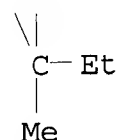


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 CN Butanamide, N,N'-[5-[7-[[4-(diethylamino)-2-
 [(phenylmethoxy)methyl]phenyl]imino]-6-ethyl-7H-pyrazolo[5,1-c]-
 1,2,4-triazol-3-yl]-1,3-phenylene]bis[2-[2,4-bis(1,1-
 dimethylpropyl)phenoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A

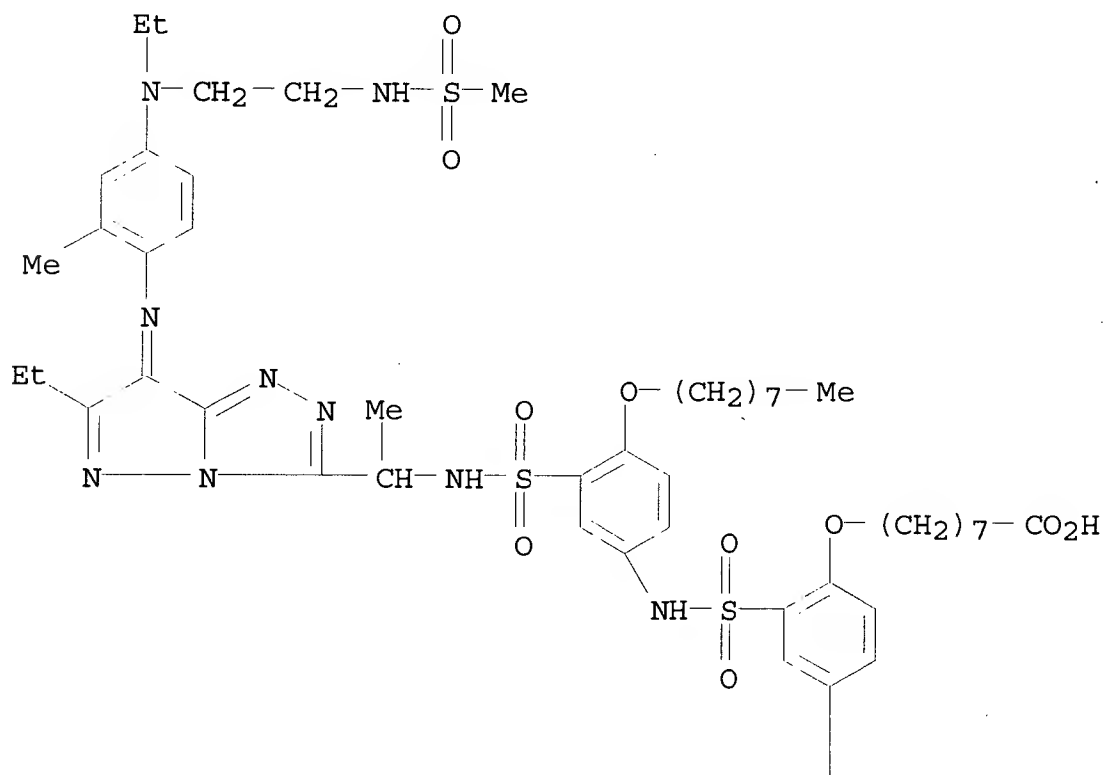


PAGE 2-A

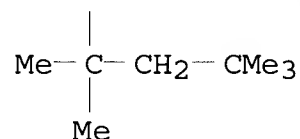


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 (octyloxy)phenyl]amino]sulfonyl]-4-(1,1,3,3-
 tetramethylbutyl)phenoxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IC ICM C09B067-46
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 C09D011-00
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 Photographic Sensitizers)
 ST **ink jet ink** recording
 phenyliminopyrazolotriazole deriv colorant dye
 IT Dyes
 (colorant particle dispersions for **ink-jet**
inks and method of recording)
 IT **Inks**

(jet-printing; colorant particle dispersions
for ink-jet inks and method of
recording)

IT Pigments, nonbiological
(org.; colorant particle dispersions for ink-
jet inks and method of recording)

IT 358638-85-4P 358638-86-5P
(intermediate; colorant particle dispersions for ink-
jet inks and method of recording)

IT 292833-36-4P 358342-81-1P 358342-86-6P
358342-89-9P 358342-90-2P 358342-91-3P
358342-92-4P 358638-59-2P 358638-60-5P
358638-61-6P 358638-62-7P 358638-63-8P
358638-64-9P 358638-65-0P 358638-66-1P
358638-67-2P 358638-68-3P 358638-69-4P
358638-70-7P 358638-71-8P 358638-72-9P
358638-73-0P 358638-74-1P 358638-75-2P
358638-76-3P 358638-77-4P 358638-78-5P
358638-79-6P 358638-80-9P 358638-81-0P

(oil-sol. dyes; colorant particle dispersions for ink-
jet inks and method of recording)

IT 26300-51-6P, Acrylic acid-butyl acrylate-methyl methacrylate
copolymer 86468-54-4P, 2-Acrylamido-2-methylpropanesulfonic acid
sodium salt-ethyl methacrylate copolymer 149899-53-6P, Acrylic
acid-butyl methacrylate-1H,1H,2H,2H-perfluorodecyl acrylate
copolymer 346706-11-4P, Butyl methacrylate-ethyl
methacrylate-1H,1H,2H,2H-perfluorodecyl acrylate copolymer
358638-88-7P, 2-Acrylamido-2-methylpropanesulfonic acid sodium
salt-isobutyl methacrylate copolymer

(oil-sol. resin; colorant particle dispersions for ink-
jet inks and method of recording)

IT 128-08-5 25646-71-3 25646-77-9 155218-29-4 244763-66-4
358342-79-7 358342-80-0 358342-87-7 358638-82-1 358638-83-2
358638-84-3

(reactant; colorant particle dispersions for ink-
jet inks and method of recording)

L11 ANSWER 15 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 134:312606 HCA

TITLE: Azomethine dye-containing aqueous ink-
jet inks and printing
method therewith

INVENTOR(S): Fujiwara, Yoshinori

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

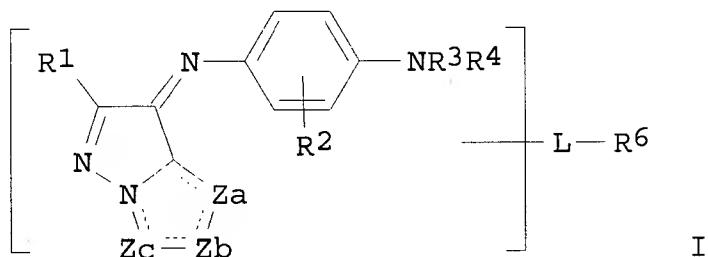
PATENT INFORMATION:

PATENT NO.

KIND DATE

APPLICATION NO. DATE

 JP 2001115066 A2 20010424 JP 1999-291305 19991013
 OTHER SOURCE(S): MARPAT 134:312606
 GI



AB In order to improve the light fastness, title inks contain azomethine dyes I [R1, R3, R4 = H, (substituted) alkyl, aryl; R2 = H, halogen, (substituted) alkyl, alkoxy, aryl(oxy), cyano, acylamino, sulfonyl(amino), alkoxycarbonyl(amino), ureido, alkylthio, arylthio, carbamoyl, sulfamoyl, acyl, NH2, OH; or R2-R3 formed into rings, or R3-R4 formed into rings; Za-Zc = N or CR5, R5 = H, nonmetal group; L = a bond or divalent group; R6 = light-resistant group; with at least one of R1-R6 = carboxy or sulfonic group]. An aq. ink contg. II gave prints with retention of color d. of .gtoreq.80% after irradiating with 85,000 lx over 3 days.

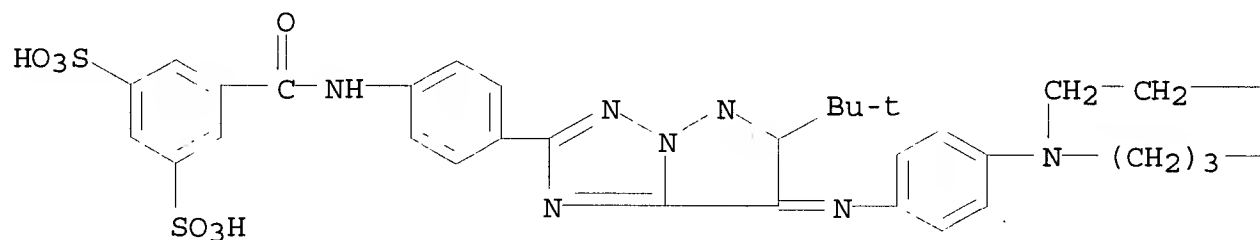
IT 335356-04-2 335356-05-3 335356-06-4
 335356-07-5 335356-09-7

(light-resistant azomethine dye-contg. aq. **ink-jet inks**)

RN 335356-04-2 HCA

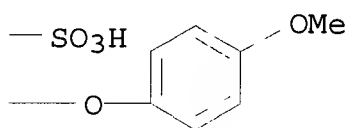
CN 1,3-Benzenedisulfonic acid, 5-[[[4-[6-(1,1-dimethylethyl)-7-[[4-[[3-(4-methoxyphenoxy)propyl](2-sulfoethyl)amino]phenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 3 Na

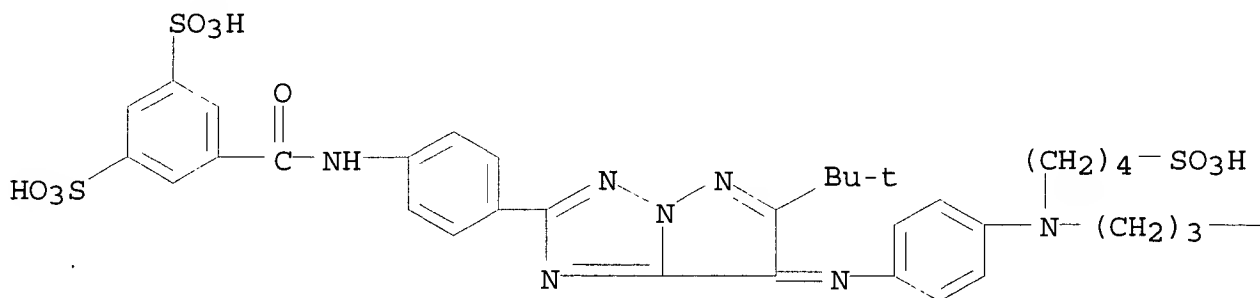
PAGE 1-B



RN 335356-05-3 HCA

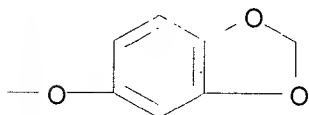
CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[[3-(1,3-benzodioxol-5-yloxy)propyl](4-sulfobutyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



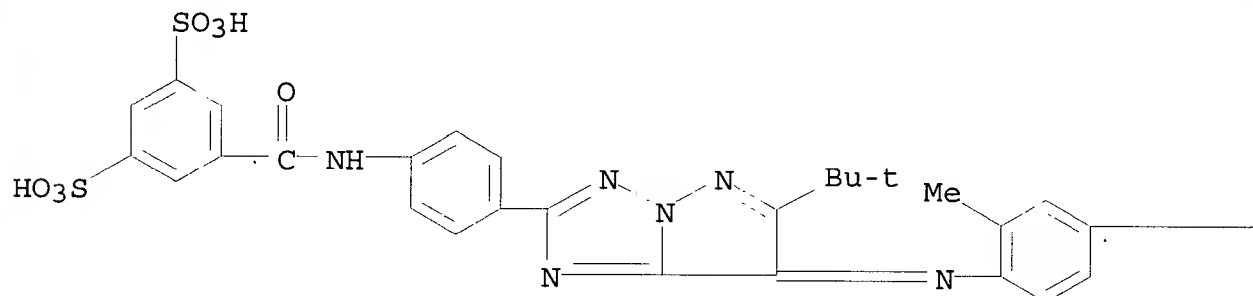
● 3 Na

PAGE 1-B



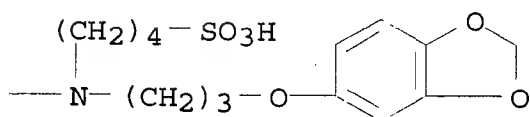
RN 335356-06-4 HCA
 CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[[3-(1,3-benzodioxol-5-yloxy)propyl] (4-sulfobutyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 3 Na

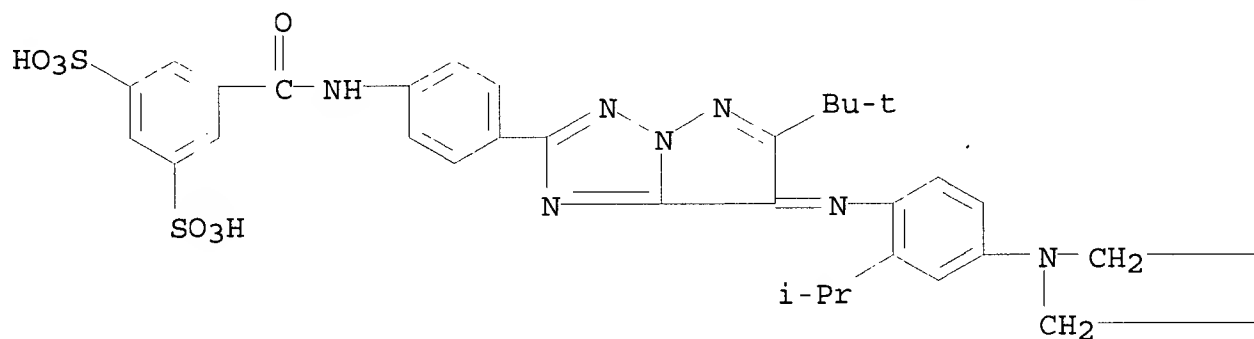
PAGE 1-B



RN 335356-07-5 HCA
 CN .beta.-Alanine, N-[4-[[6-(1,1-dimethylethyl)-2-[4-[(3,5-disulfobenzoyl)amino]phenyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-

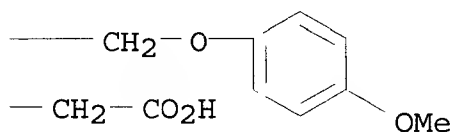
ylidene]amino]-3-(1-methylethyl)phenyl]-N-[2-(4-methoxyphenoxy)ethyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



• 2 Na

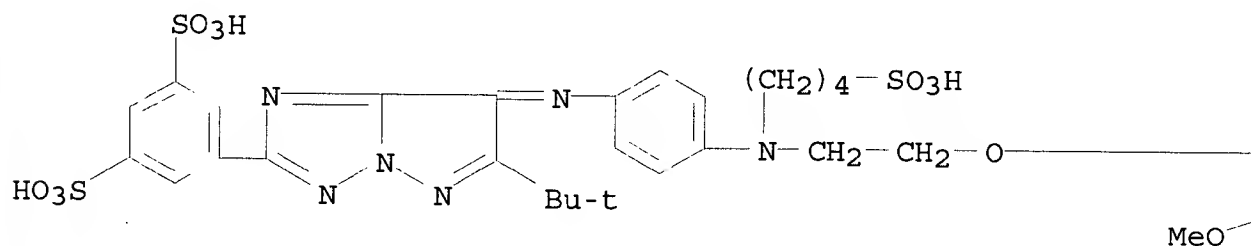
PAGE 1-B



RN 335356-09-7 HCA

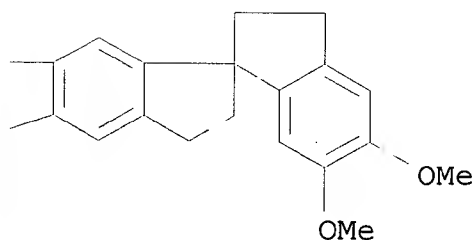
CN 1,3-Benzenedisulfonic acid, 5-[6-(1,1-dimethylethyl)-7-[[4-[(4-sulfoethyl) 2-[(2,2',3,3'-tetrahydro-5,5',6'-trimethoxy-1,1'-spirobi[1H-inden]-6-yl)oxy]ethyl]amino]phenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



• 3 Na

PAGE 1-B

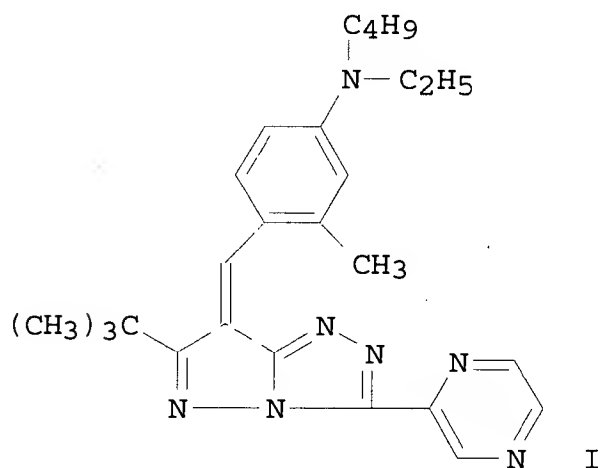


IC ICM C09D011-00
 ICS B41J002-01; B41M005-00
 CC 42-12 (Coatings, Inks, and Related Products)
 ST light resistance azomethine dye aq **jet printing ink**
 IT Dyes
 (azomethine; light-resistant azomethine dye-contg. aq. **ink-jet inks**)
 IT **Inks**
 (**jet printing**; light-resistant azomethine dye-contg. aq. **ink-jet inks**)
 IT 335356-04-2 335356-05-3 335356-06-4
 335356-07-5 335356-09-7
 (light-resistant azomethine dye-contg. aq. **ink-jet inks**)

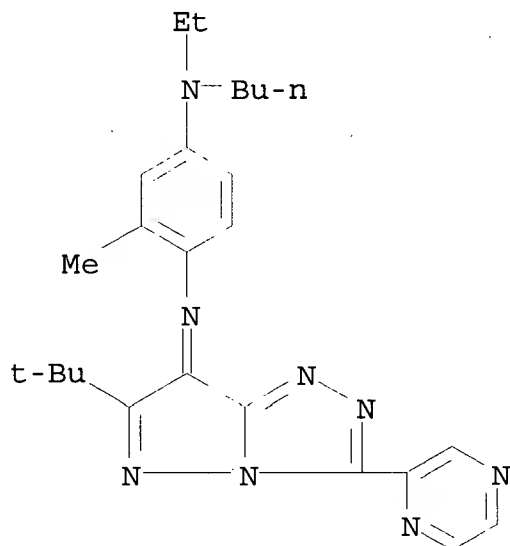
L11 ANSWER 16 OF 29 HCA COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 134:149093 HCA
 TITLE: Aqueous **ink jet inks**
 and manufacturing methods therefor
 INVENTOR(S): Sato, Naoki
 PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001031896	A2	20010206	JP 1999-205882	19990721

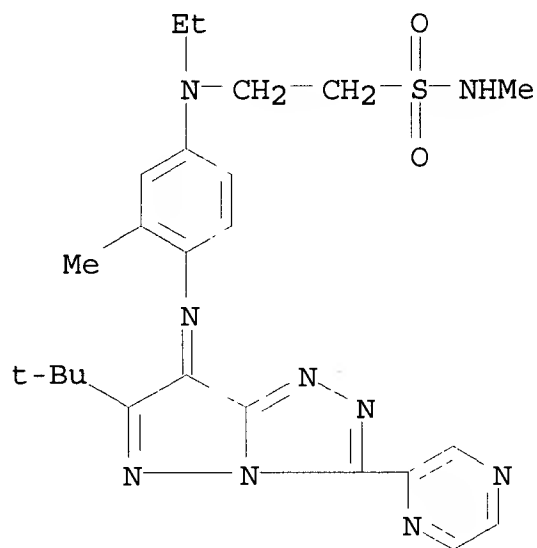
OTHER SOURCE(S): MARPAT 134:149093
 GI



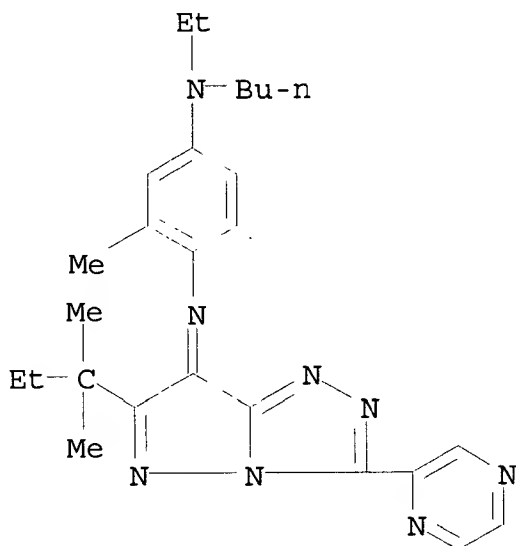
AB Inks contain dyes of oil-sol. metal chelates. Thus, I reacted with
 [CH₃COC(CO₂CH₃)COC₇H₁₅]₂Ni to prep. a dye.
 IT 323184-23-2DP, complexes with nickel compds.
 323184-26-5DP, complexes with nickel compds.
 323184-31-2DP, complexes with nickel compds.
 323184-34-5DP, complexes with nickel compds.
 (aq. **jet printing inks** contg.
 oil-sol. metal chelate dyes)
 RN 323184-23-2 HCA
 CN 1,4-Benzenediamine, N4-butyl-N1-[6-(1,1-dimethylethyl)-3-pyrazinyl-
 7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N4-ethyl-2-methyl- (9CI)
 (CA INDEX NAME)



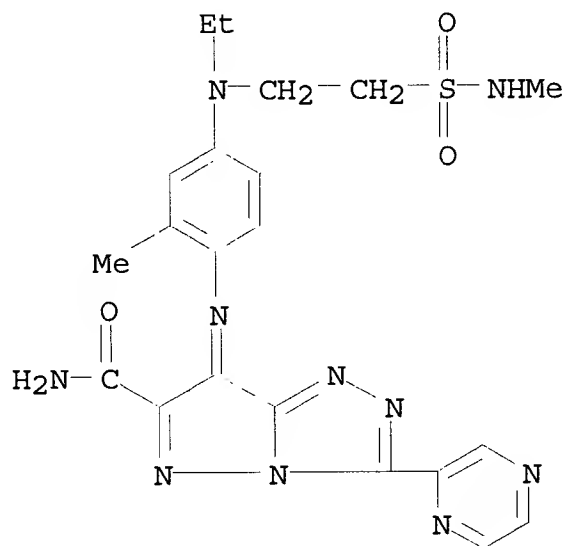
RN 323184-26-5 HCA
 CN Ethanesulfonamide, 2-[[4-[[6-(1,1-dimethylethyl)-3-pyrazinyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-methylphenyl]ethylamino]-N-methyl- (9CI) (CA INDEX NAME)



RN 323184-31-2 HCA
 CN 1,4-Benzenediamine, N4-butyl-N1-[6-(1,1-dimethylpropyl)-3-pyrazinyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N4-ethyl-2-methyl- (9CI) (CA INDEX NAME)



RN 323184-34-5 HCA
 CN 7H-Pyrazolo[5,1-c]-1,2,4-triazole-6-carboxamide,
 7-[[4-[ethyl[2-[(methylamino)sulfonyl]ethyl]amino]-2-
 methylphenyl]imino]-3-pyrazinyl- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
 ICS B41J002-01; B41M005-00
 CC 42-12 (Coatings, Inks, and Related Products)
 ST **jet printing ink** metal chelate dye;
 nickel chelate dye **jet ink**
 IT Dyes
 (aq. **jet printing inks** contg.
 oil-sol. metal chelate dyes)

IT Chelates
 (aq. **jet printing inks** contg.
 oil-sol. metal chelate dyes)

IT **Inks**
 (**jet-printing**; aq. **jet**
printing inks contg. oil-sol. metal chelate
 dyes)

IT Heterocyclic compounds
 (nitrogen, complexes with nickel compds.; aq. **jet**
printing inks contg. oil-sol. metal chelate
 dyes)

IT 159540-67-7DP, complexes with dyes 161407-47-2DP, complexes with
 dyes 192075-28-8DP, complexes with nickel compds. 323184-17-4DP,
 complexes with dyes 323184-19-6DP, complexes with dyes
 323184-20-9DP, complexes with dyes 323184-21-0DP, complexes with
 dyes 323184-22-1DP, complexes with nickel compds.
323184-23-2DP, complexes with nickel compds.
 323184-24-3DP, complexes with nickel compds. 323184-25-4DP,
 complexes with nickel compds. **323184-26-5DP**, complexes
 with nickel compds. 323184-27-6DP, complexes with nickel compds.
 323184-28-7DP, complexes with nickel compds. 323184-29-8DP,
 complexes with nickel compds. 323184-30-1DP, complexes with nickel
 compds. **323184-31-2DP**, complexes with nickel compds.
 323184-32-3DP, complexes with nickel compds. 323184-33-4DP,
 complexes with nickel compds. **323184-34-5DP**, complexes
 with nickel compds. 323184-35-6DP, complexes with nickel compds.
 (aq. **jet printing inks** contg.
 oil-sol. metal chelate dyes)

L11 ANSWER 17 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 134:18559 HCA

TITLE: Preparation of water-resistant pigments with
 good hue and lightfastness and their use for
ink-jet inks

INVENTOR(S): Fujiwara, Yoshinori; Kamio, Takayoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

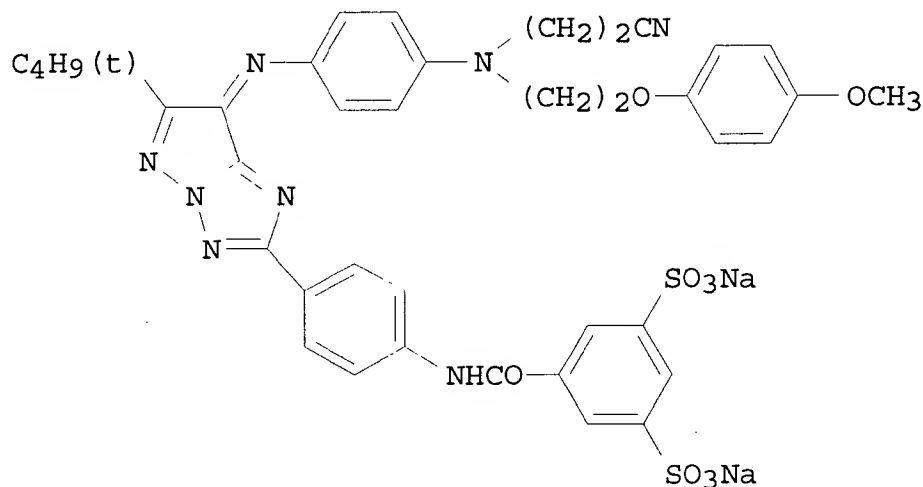
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000327969	A2	20001128	JP 1999-141979	19990521
OTHER SOURCE(S): MARPAT 134:18559				
GI				



AB The pigments are compds. A(LB)_q, where A is a pigment residue absorbing visible and/or IR light, L is divalent connection group, B is a group capable of suppressing color fading and q=1 or 2 and A or/and B may contain sulfonic acid or/and carboxyl groups. One example of the pigments is compd. I which was prepd. by coupling of a 1H-pyrazolo[1,5-b][1,2,4]triazole deriv. with a p-nitrosoaniline deriv. Heating the mixt. of I 4, diethylene glycol 9, tetraethylene glycol monobutyl ether 9, glycerin 7, diethanolamine 1 and water 70 parts at 30-40.degree. for 1 h gave a waterborne ink with good claimed properties.

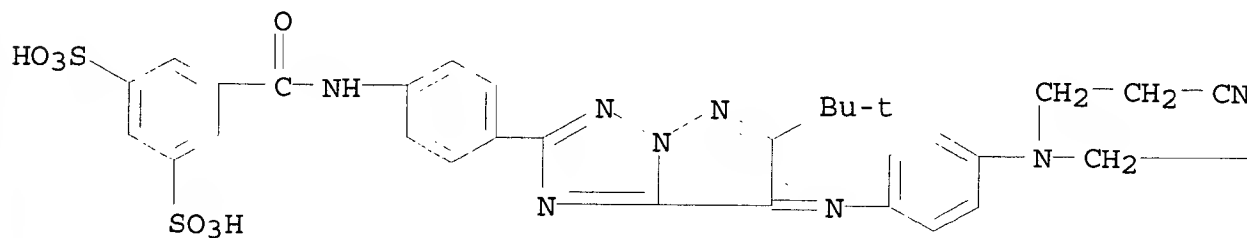
IT 309932-37-4P 309932-39-6P

(prepn. of water-resistant pigments with good hue and lightfastness and use for **ink-jet inks**)

RN 309932-37-4 HCA

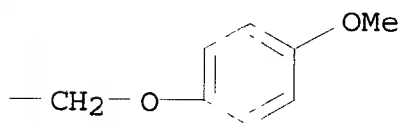
CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[(2-cyanoethyl)[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



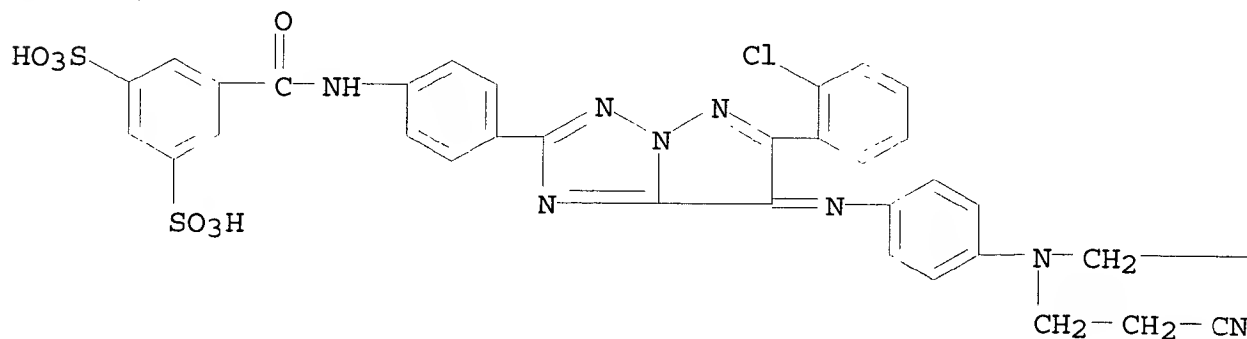
● 2 Na

PAGE 1-B



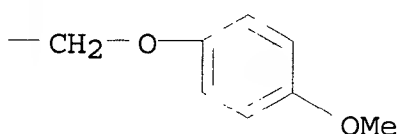
RN 309932-39-6 HCA
 CN 1,3-Benzenedisulfonic acid, 5-[[[4-[6-(2-chlorophenyl)-7-[[4-[(2-cyanoethyl)[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



● 2 Na

PAGE 1-B



IC ICM C09D011-00
ICS B41J002-01; B41M005-00

CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and
Photographic Sensitizers)
Section cross-reference(s): 42

ST water resistant pigment prepn **ink jet**
ink; hue lightfastness pigment prepn; visible IR light
absorbing pigment prepn; color fading resistance pigment prepn;
pyrazolo triazole nitrosoaniline coupling pigment prepn

IT **Inks**
(**jet-printing**, water-thinned; prepn. of
water-resistant pigments with good hue and lightfastness and use
for **ink-jet inks**)

IT Pigments, nonbiological
(prepn. of water-resistant pigments with good hue and
lightfastness and use for **ink-jet**
inks)

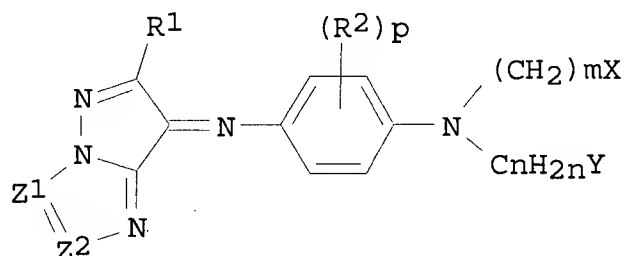
IT 309932-37-4P 309932-39-6P 309932-41-0P
309932-43-2P
(prepn. of water-resistant pigments with good hue and
lightfastness and use for **ink-jet**
inks)

IT 20514-27-6 105701-18-6 136640-14-7 136640-26-1 227466-22-0
309932-28-3 309932-32-9 309932-35-2
(reactant; prepn. of water-resistant pigments with good hue and
lightfastness and use for **ink-jet**
inks)

L11 ANSWER 18 OF 29 HCA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 133:239369 HCA
TITLE: Azomethine magenta dyes and oily magenta inks
containing them
INVENTOR(S): Yamakawa, Katsuyoshi; Motoki, Masuji; Asanuma,

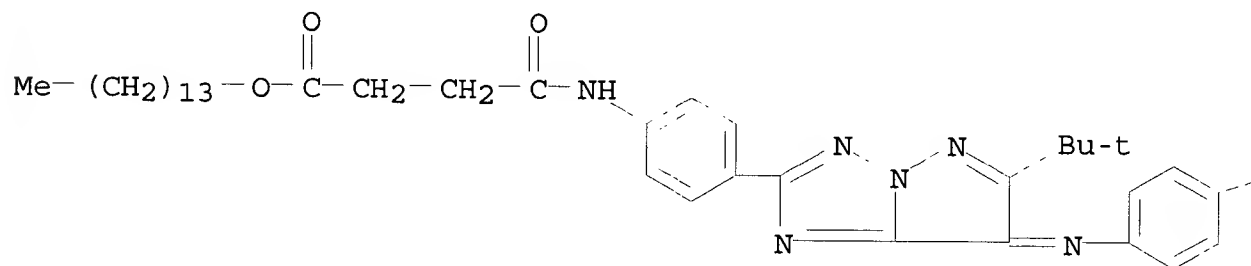
Naoki; Suzuki, Ryo; Sato, Tadahisa; Mikoshiba, Hisashi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Eur. Pat. Appl., 23 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1035172	A2	20000913	EP 2000-104167	20000229
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2000327940	A2	20001128	JP 2000-24454	20000201
PRIORITY APPLN. INFO.:			JP 1999-66722	A 19990312
OTHER SOURCE(S):		MARPAT 133:239369		
GI				

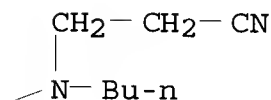


AB The azomethine dyes (I; R1 = C1-16-alkyl; R2 = halogen, C1-20-alkyl or -alkoxy, C2-20-amido or -alkoxycarbonylamino; X = cyano, C2-19-alkoxycarbonyl, C1-18-alkylsufonyl or -alkylsulfamoyl, C6-26-arylsufonyl or -arylsulfamoyl, sulfamoyl; Y = H, halogen, hydroxy, C1-20-alkoxy, C6-20-aryloxy, C2-20-acyloxy; m = 1-4; n = 1-18; p = 0-4; Z1:Z2 = substituted N:CH, CH:N, CH:CH) are oil-sol. magenta dyes having excellent color reprodn. and color stability for **jet-printing inks**. In an example, 6-tert-butyl-7-chloro-2-[4-(3-(tetradecyloxycarbonyl)propanoylamino)phenyl]pyrazolo[1,5-b][1,2,4]triazole was condensed with 4-amino-N-butyl-N-(2-cyanoethyl)aniline to give a magenta azomethine dye with good soly. in EtOAc.
 IT 292833-36-4P 292833-37-5P
 (dye; azomethine magenta dyes for oily **jet-printing inks**)
 RN 292833-36-4 HCA
 CN Butanoic acid, 4-[[[4-[7-[[4-[butyl(2-cyanoethyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]-4-oxo-, tetradecyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

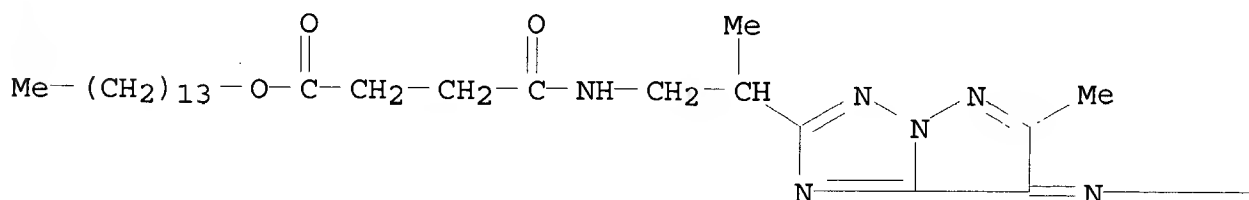


PAGE 1-B

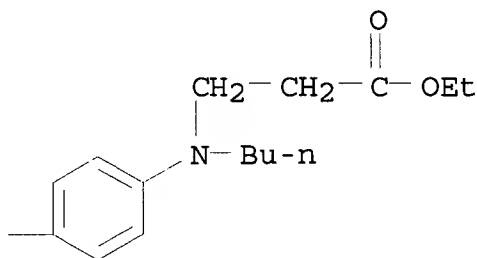


RN 292833-37-5 HCA
 CN .beta.-Alanine, N-butyl-N-[4-[[2-[2-[[1,4-dioxo-4-(tetradecyloxy)butyl]amino]-1-methylethyl]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]-, ethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



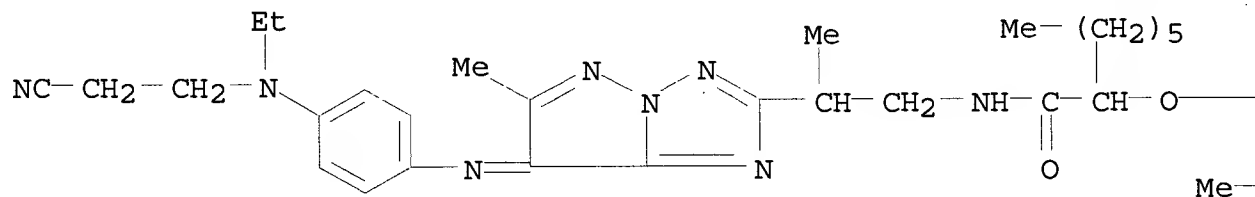
IT 292833-38-6 292833-39-7 292833-40-0
 292833-41-1 292833-42-2

(dye; azomethine magenta dyes for oily jet-
 printing inks)

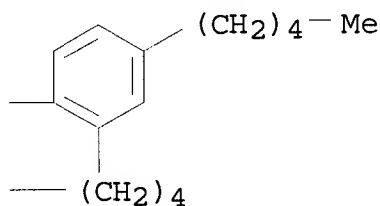
RN 292833-38-6 HCA

CN Octanamide, N-[2-[7-[[4-[(2-cyanoethyl)ethylamino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2-(2,4-dipentylphenoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A



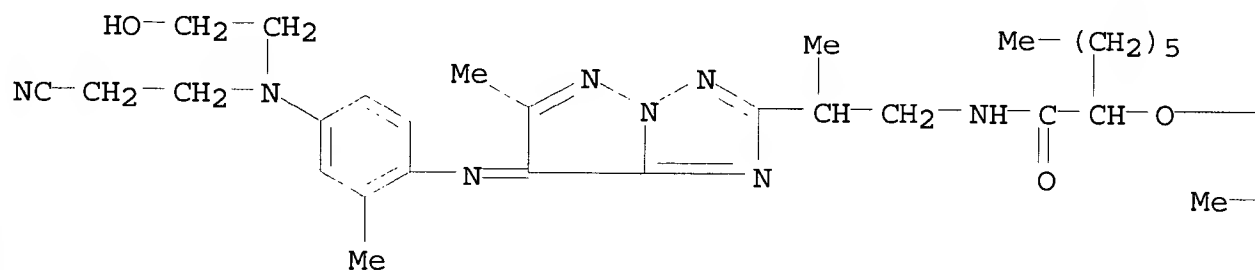
PAGE 1-B



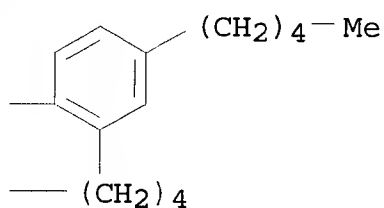
RN 292833-39-7 HCA

CN Octanamide, N-[2-[7-[[4-[(2-cyanoethyl)(2-hydroxyethyl)amino]-2-methylphenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2-(2,4-dipentylphenoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A

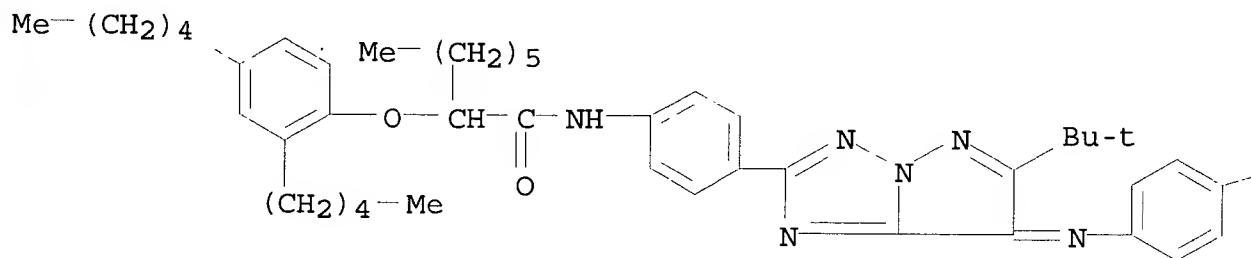


PAGE 1-B

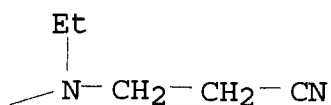


RN 292833-40-0 HCA
 CN Octanamide, N-[4-[7-[[4-[(2-cyanoethyl)ethylamino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]-2-(2,4-dipentylphenoxy) - (9CI) (CA INDEX NAME)

PAGE 1-A



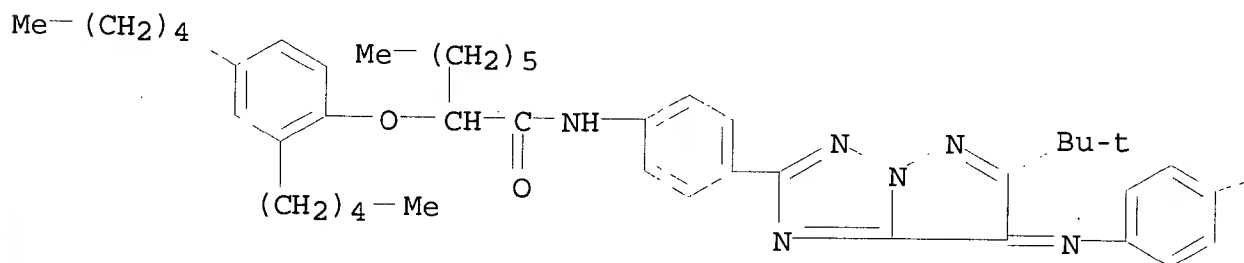
PAGE 1-B



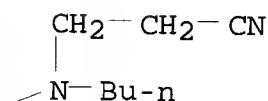
RN 292833-41-1 HCA

CN Octanamide, N-[4-[7-[[4-[butyl(2-cyanoethyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]-2-(2,4-dipentylphenoxy) - (9CI) (CA INDEX NAME)

PAGE 1-A



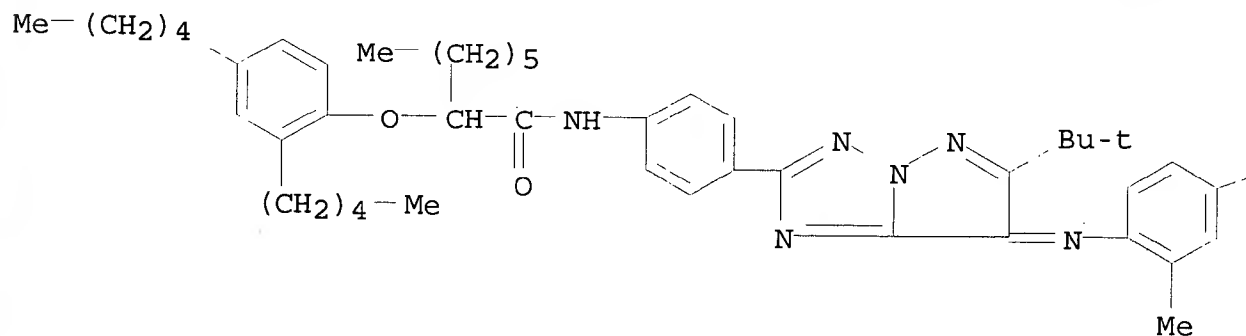
PAGE 1-B



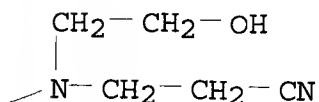
RN 292833-42-2 HCA

CN Octanamide, N-[4-[7-[[4-[(2-cyanoethyl)(2-hydroxyethyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]-2-(2,4-dipentylphenoxy) - (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C09B055-00
ICS C09D011-00
CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 42
ST azomethine magenta dye prodn **jet ink**
IT Azo dyes
(azomethine magenta dyes for oily **jet-printing inks**)
IT **Inks**
(**jet-printing**; azomethine magenta dyes for oily **jet-printing inks**)
IT 292833-36-4P 292833-37-5P
(dye; azomethine magenta dyes for oily **jet-printing inks**)
IT 292833-38-6 292833-39-7 292833-40-0
292833-41-1 292833-42-2
(dye; azomethine magenta dyes for oily **jet-printing inks**)
IT 292833-43-3 292833-44-4 292833-45-5
(starting material; prodn. of azomethine magenta dyes for oily **jet-printing inks**)

L11 ANSWER 19 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 132:109544 HCA

TITLE: **Ink-jet ink**

compositions with storage stability and light resistance

INVENTOR(S): Kakimi, Fujio; Kamio, Takayoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

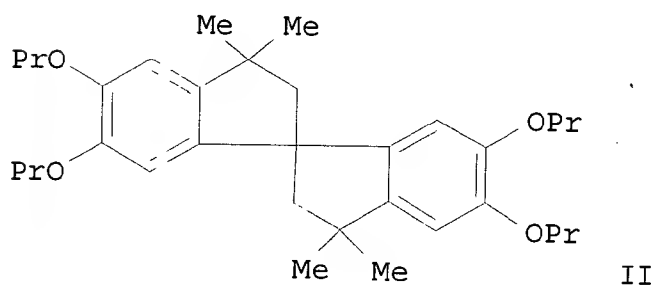
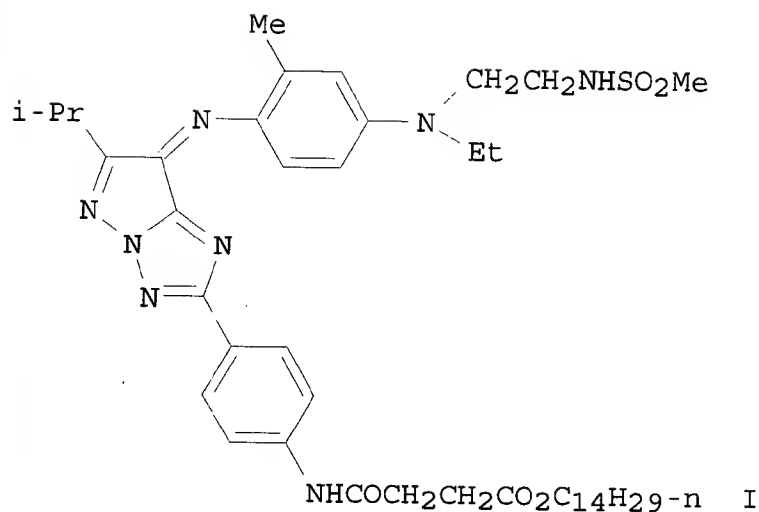
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----
JP 2000034430	A2	20000202	JP 1998-205304	19980721
OTHER SOURCE(S):	MARPAT 132:109544			
GI				



AB The compns. contain aq. media and polyurea-polyurethane microcapsules (av. particle size 0.1-1 .mu.m) contg. water-insol. dyes and discoloration inhibitors. Thus, dye I and discoloration inhibitor II were microencapsulated using Takenate D 110N, Poval KL 318 [carboxy-modified poly(vinyl alc.)], and diethylenetriamine to give a microcapsule dispersion, which was applied to polyethylene-coated paper to give a colored sheet showing light stability (residual image concn. after light exposure at 80,000 lx for 10 days) 90%.

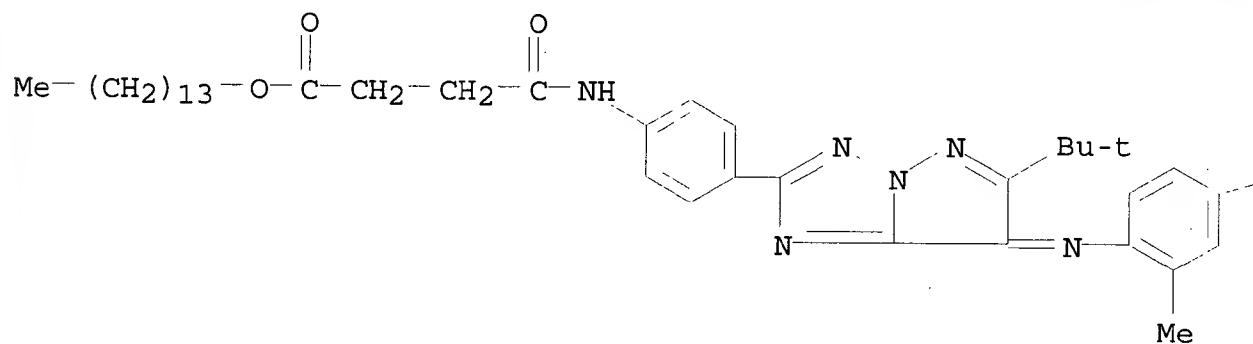
IT 236401-55-1

(dye; storage-stable and light-resistant ink-jet inks contg. microencapsulated dyes and discoloration inhibitors)

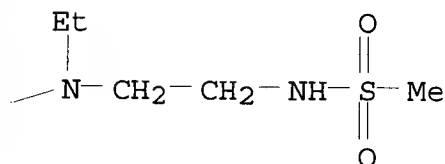
RN 236401-55-1 HCA

CN Butanoic acid, 4-[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]-4-oxo-, tetradecyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



- IC ICM C09D011-00
ICS B41J002-01; B41M005-00; C09B057-00; C09B067-08
- CC 42-12 (Coatings, Inks, and Related Products)
- ST **ink jet** polyurea polyurethane microcapsule dye;
discoloration inhibitor dye encapsulation **ink jet**
- IT Light-resistant materials
(inks; storage-stable and light-resistant **ink-jet inks** contg. microencapsulated dyes and
discoloration inhibitors)
- IT **Inks**
(**jet-printing**; storage-stable and
light-resistant **ink-jet inks** contg.
microencapsulated dyes and discoloration inhibitors)
- IT **Inks**
(light-resistant; storage-stable and light-resistant **ink-jet inks** contg. microencapsulated dyes and
discoloration inhibitors)
- IT Encapsulation
(microencapsulation; storage-stable and light-resistant
ink-jet inks contg. microencapsulated
dyes and discoloration inhibitors)
- IT Polyurethanes, uses
(polyurea-, microcapsules; storage-stable and light-resistant
ink-jet inks contg. microencapsulated

- IT dyes and discoloration inhibitors)
 Polyureas
 (polyurethane-, microcapsules; storage-stable and light-resistant
 ink-jet inks contg. microencapsulated
 dyes and discoloration inhibitors)
 IT Discoloration prevention agents
 (storage-stable and light-resistant **ink-jet**
 inks contg. microencapsulated dyes and discoloration
 inhibitors)
 IT 89929-65-7
 (discoloration inhibitor; storage-stable and light-resistant
 ink-jet inks contg. microencapsulated
 dyes and discoloration inhibitors)
 IT 236401-55-1
 (dye; storage-stable and light-resistant **ink-**
 jet inks contg. microencapsulated dyes and
 discoloration inhibitors)
 IT 9002-89-5D, Poly(vinyl alcohol), carboxy-modified, polymers with
 polyisocyanate and diethylenetriamine 255717-43-2,
 Diethylenetriamine-Poval KL 318-Takenate D 110N copolymer
 (microcapsule; storage-stable and light-resistant **ink-**
 jet inks contg. microencapsulated dyes and
 discoloration inhibitors)

L11 ANSWER 20 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 132:51275 HCA
 TITLE: **Inks for ink-jet
 printing**

INVENTOR(S): Kamio, Takayoshi; Arai, Itsumi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

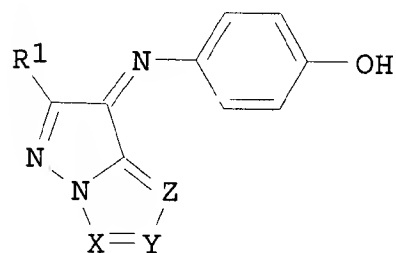
DOCUMENT TYPE: CODEN: JKXXAF
 Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11349874	A2	19991221	JP 1998-178188	19980610
OTHER SOURCE(S): MARPAT 132:51275				
GI				



I

AB A ink-jet printing ink is characterized by contg. dye I (R1 = H, halogen, alkyl, cycloalkyl, aralkyl, aryl, heterocycle, alkoxy, aryloxy, CN, amido, sulfoamido, ureido, alkoxycarbonylamino, alkylthio, arylthio, alkoxycarbonyl, carbamoyl, sulfamoyl, sulfonyl, acyl, amino, alkylamino, X, Y, Z = N, CR2; R2 = H, alkyl, cycloalkyl, aralkyl, aryl, heterocycle, alkoxy, aryloxy).

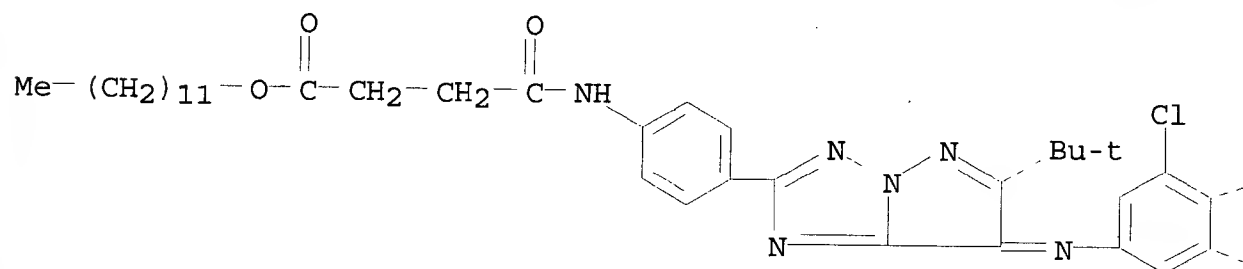
IT 252913-90-9 252913-91-0 252913-92-1
252913-93-2 252913-94-3 252913-95-4
252913-96-5 252913-97-6 252913-98-7
252913-99-8 252914-00-4

(dyes for for ink-jet printing inks)

RN 252913-90-9 HCA

CN Butanoic acid, 4-[[4-[7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]-4-oxo-, dodecyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



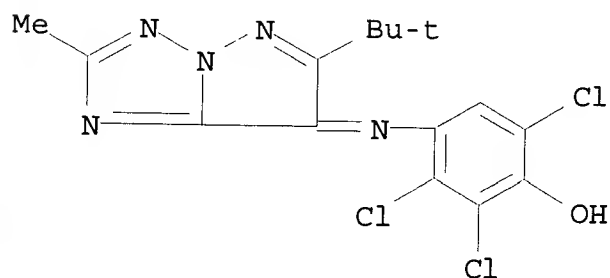
PAGE 1-B

— OH

— Cl

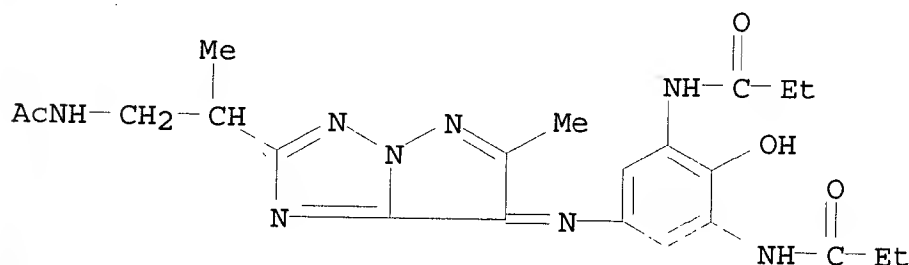
RN 252913-91-0 HCA

CN Phenol, 2,3,6-trichloro-4-[[6-(1,1-dimethylethyl)-2-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]- (9CI) (CA INDEX NAME)



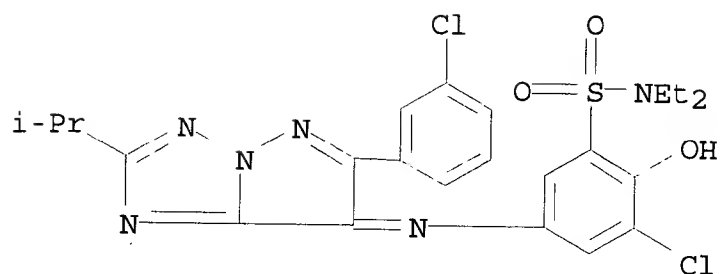
RN 252913-92-1 HCA

CN Propanamide, N,N'-[5-[[2-[2-(acetylamino)-1-methylethyl]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-2-hydroxy-1,3-phenylene]bis- (9CI) (CA INDEX NAME)



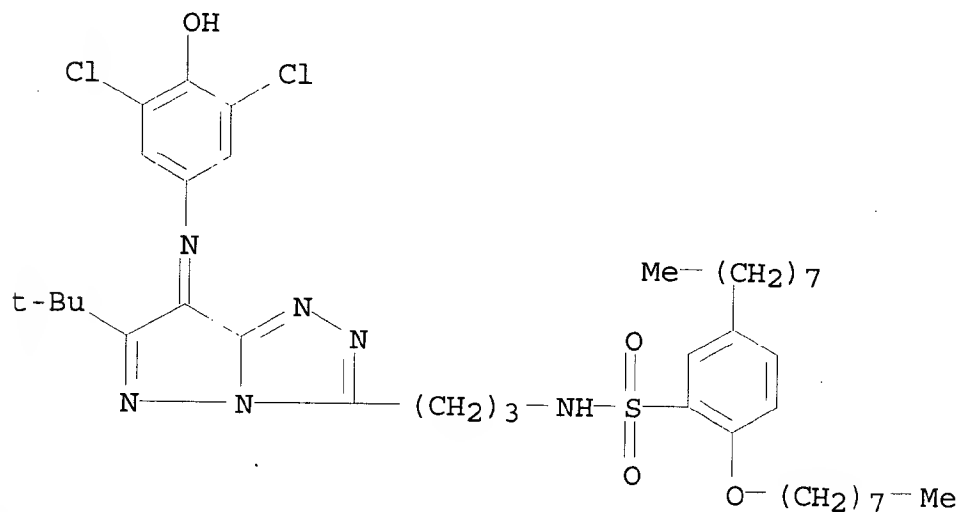
RN 252913-93-2 HCA

CN Benzenesulfonamide, 3-chloro-5-[[6-(3-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-N,N-diethyl-2-hydroxy- (9CI) (CA INDEX NAME)



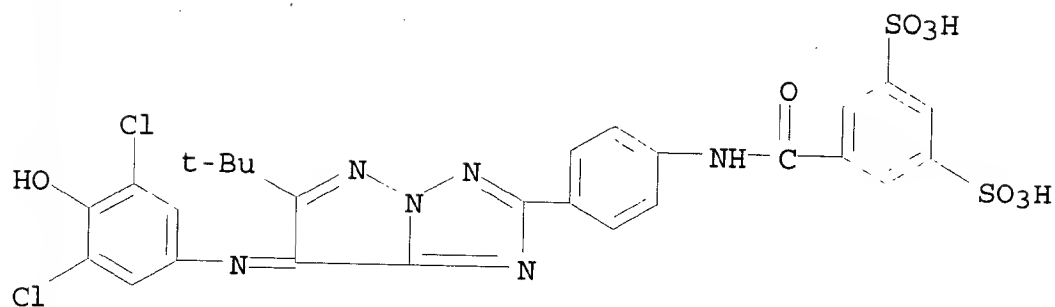
RN 252913-94-3 HCA

CN Benzenesulfonamide, N-[3-[7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]propyl]-5-octyl-2-(octyloxy)- (9CI) (CA INDEX NAME)



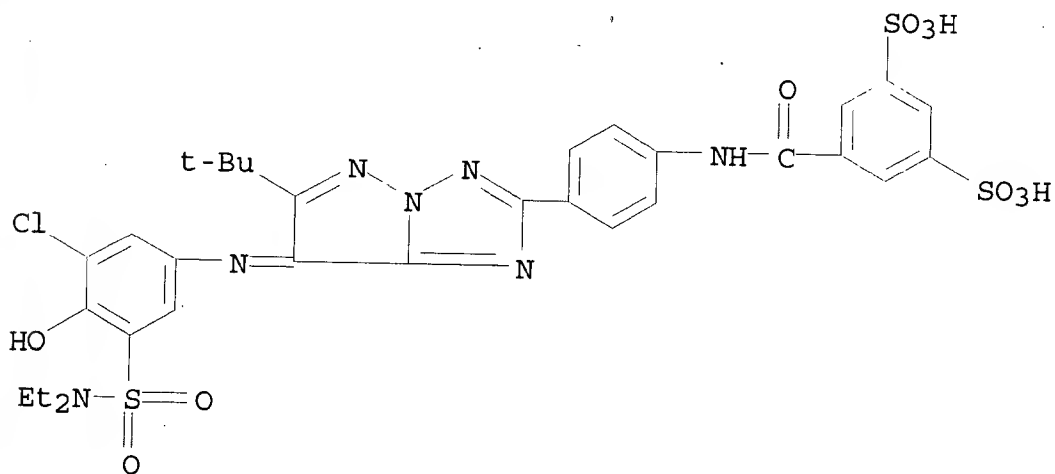
RN 252913-95-4 HCA

CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)



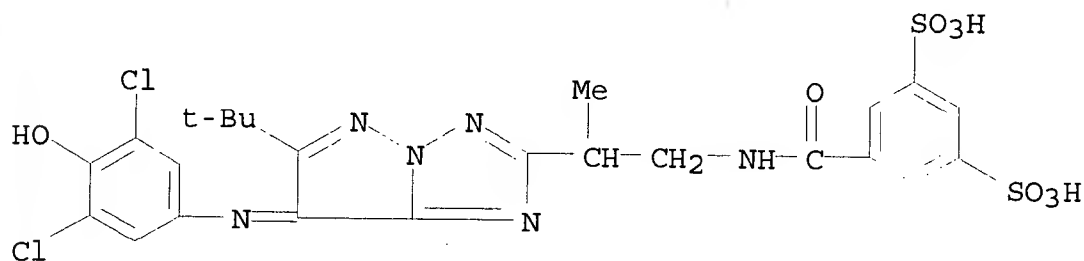
• 2 Na

RN 252913-96-5 HCA
 CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[3-chloro-5-
 [(diethylamino)sulfonyl]-4-hydroxyphenyl]imino]-6-(1,1-
 dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-
 yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)



• 2 Na

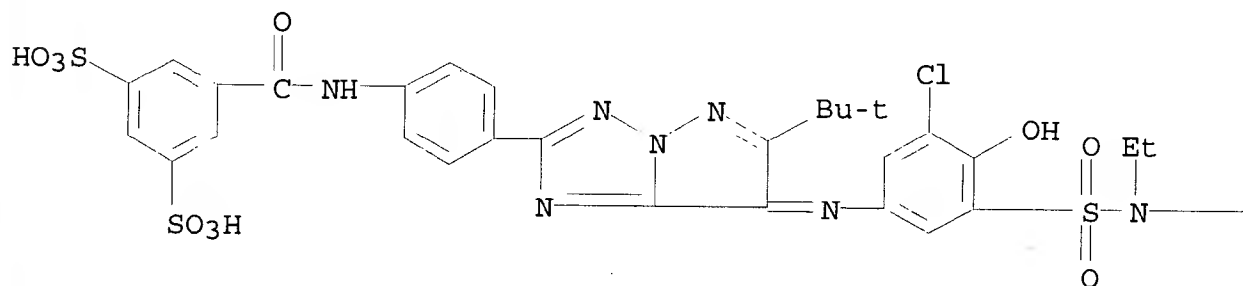
RN 252913-97-6 HCA
 CN 1,3-Benzenedisulfonic acid, 5-[[[2-[7-[(3,5-dichloro-4-
 hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-
 b][1,2,4]triazol-2-yl]propyl]amino]carbonyl]-, disodium salt (9CI)
 (CA INDEX NAME)



• 2 Na

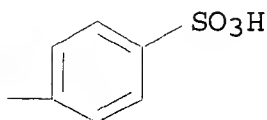
RN 252913-98-7 HCA
 CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[3-chloro-5-[[ethyl(4-sulfophenyl)amino]sulfonyl]-4-hydroxyphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, trisodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



• 3 Na

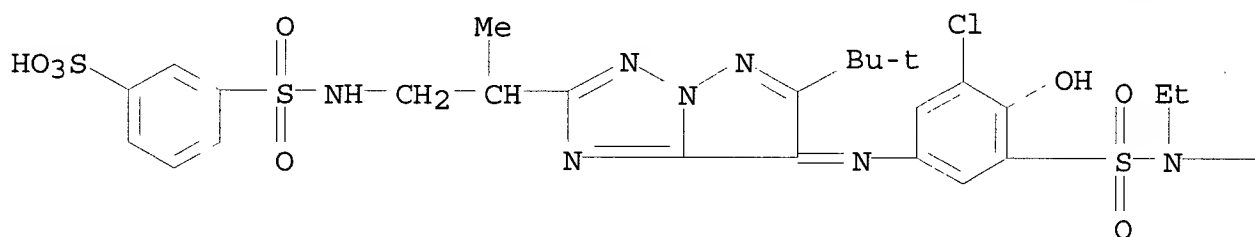
PAGE 1-B



RN 252913-99-8 HCA

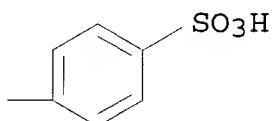
CN Benzenesulfonic acid, 3-[[[2-[7-[[3-chloro-5-[[ethyl(4-sulfophenyl)amino]sulfonyl]-4-hydroxyphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]amino]sulfonyl]-, dipotassium salt (9CI) (CA INDEX NAME)

PAGE 1-A



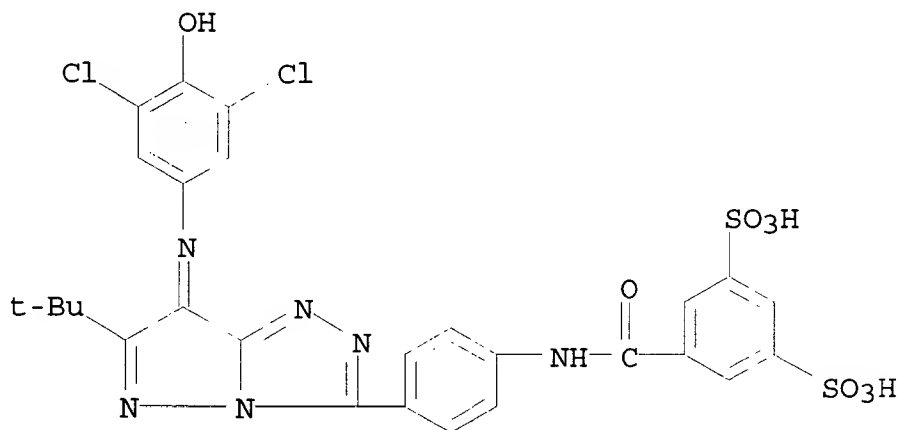
0 2 K

PAGE 1-B



RN 252914-00-4 HCA

CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[(3,5-dichloro-4-hydroxyphenyl)imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)



• 2 Na

IC ICM C09D011-00
ICS B41M005-00
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
ST **ink jet printing dye**
IT Dyes
Ink-jet printing
(dyes for for **ink-jet printing inks**)
IT **Inks**
(**jet-printing**; dyes for for **ink-jet printing inks**)
IT 252913-90-9 252913-91-0 252913-92-1
252913-93-2 252913-94-3 252913-95-4
252913-96-5 252913-97-6 252913-98-7
252913-99-8 252914-00-4
(dyes for for **ink-jet printing inks**)

L11 ANSWER 21 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 131:145866 HCA

TITLE: **Ink-jet inks**
providing **print** with improved rub resistance

INVENTOR(S): Helling, Guenter; Herrmann, Stefan

PATENT ASSIGNEE(S): Agfa-Gevaert A.-G., Germany

SOURCE: Ger. Offen., 20 pp.

CODEN: GWXXBX

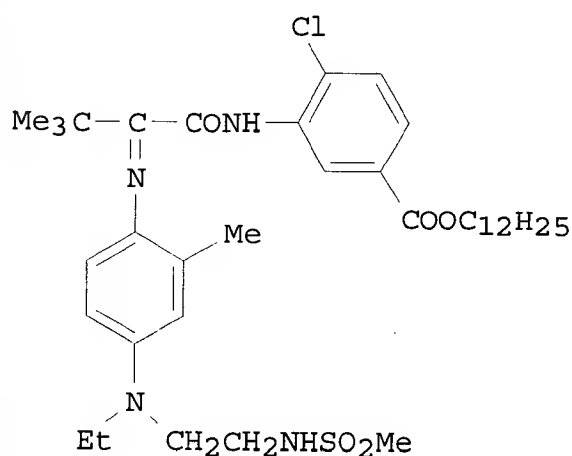
DOCUMENT TYPE: Patent

LANGUAGE: German

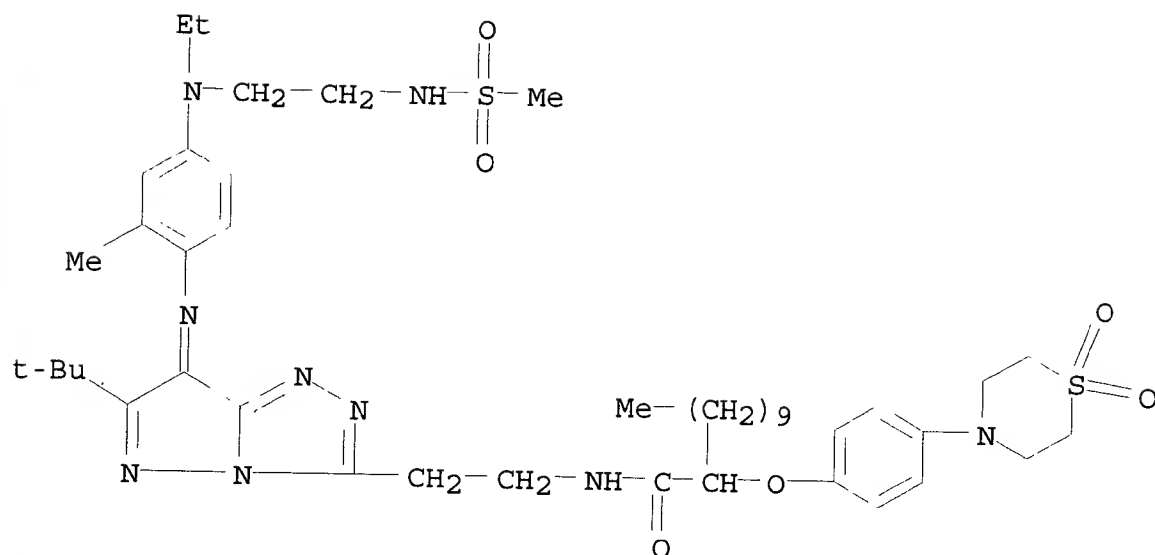
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19804123	A1	19990805	DE 1998-19804123	19980203
US 6313196	B1	20011106	US 1999-237822	19990127
JP 11286637	A2	19991019	JP 1999-25130	19990202
PRIORITY APPLN. INFO.: GI			DE 1998-19804123 A	19980203

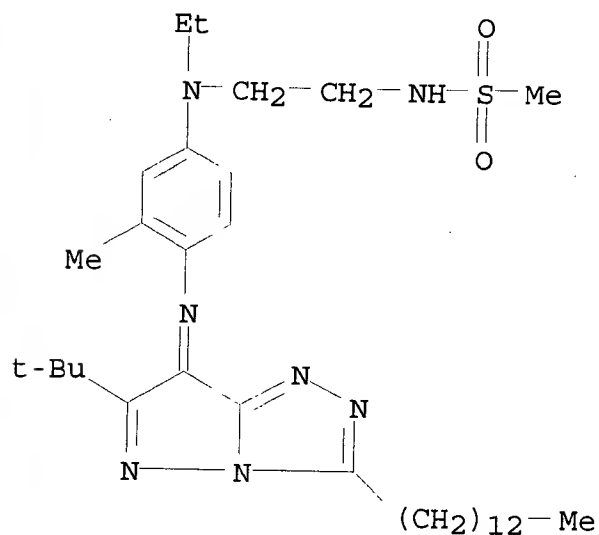


- AB **Ink-jet inks** with the title property are based on dispersions contg. ionic polymers loaded with dyes. A typical dispersion was manufd. by heating 72.7 g adipic acid-hexanediol-HDI-neopentyl glycol-Na 2-aminoethyl-.beta.-aminopropionate copolymer in 550 g Me2CO 15 min at 50.degree. with 5.45 g dye I in 80 g Me2CO, adding 220 g water, and removing the Me2CO by vacuum distn.
- IT 226213-46-3DP, reaction products with ionomers
 236401-47-1DP, reaction products with ionomers
 236401-53-9DP, reaction products with ionomers
 236401-54-0DP, reaction products with ionomers
 236401-55-1DP, reaction products with ionomers
 (**ink-jet inks** contg. ionomer-dye adducts for providing print with improved rub resistance)
- RN 226213-46-3 HCA
- CN Dodecanamide, N-[2-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]ethyl]-2-[4-(1,1-dioxido-4-thiomorpholinyl)phenoxy]-(9CI) (CA INDEX NAME)



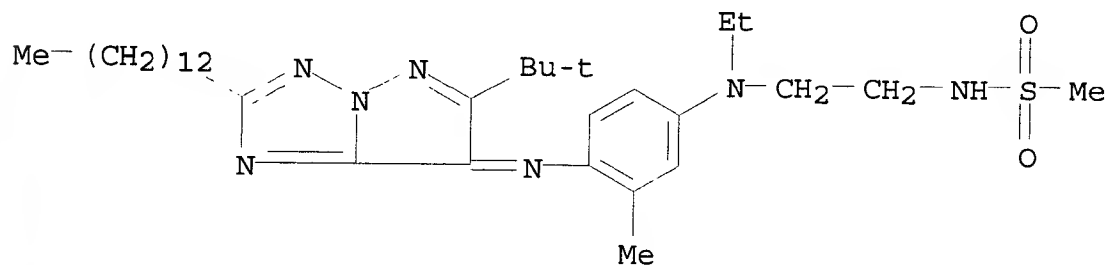
RN 236401-47-1 HCA

CN Methanesulfonamide, N-[2-[[4-[[6-(1,1-dimethylethyl)-3-tridecyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)

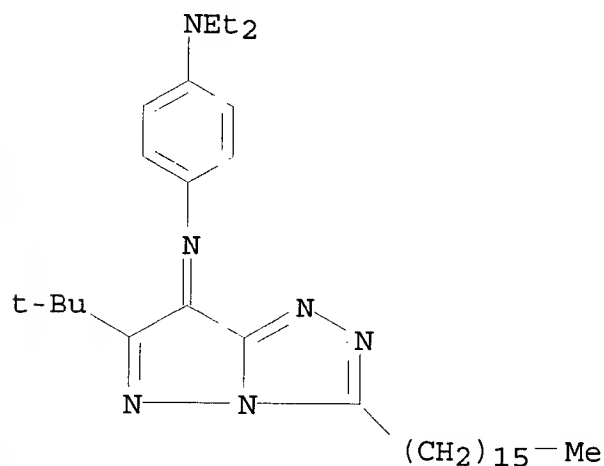


RN 236401-53-9 HCA

CN Methanesulfonamide, N-[2-[[4-[[6-(1,1-dimethylethyl)-2-tridecyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)

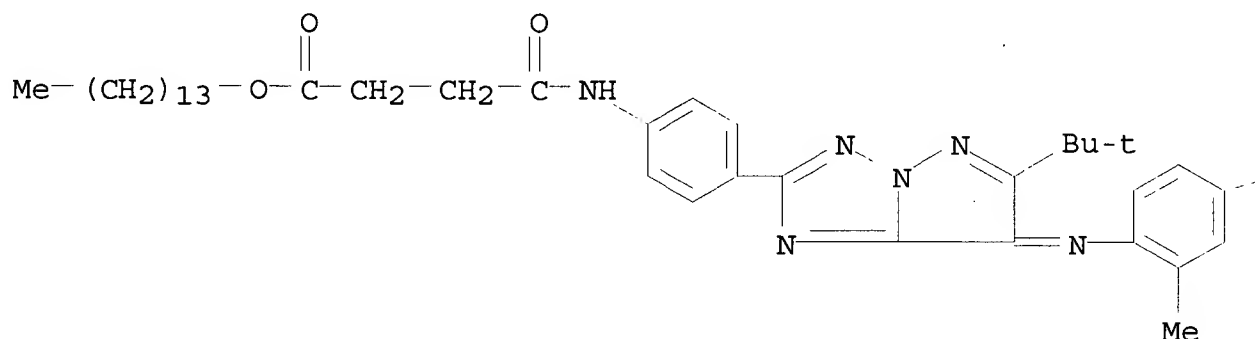


RN 236401-54-0 HCA
 CN 1,4-Benzenediamine, N'-[6-(1,1-dimethylethyl)-3-hexadecyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N,N-diethyl- (9CI) (CA INDEX NAME)

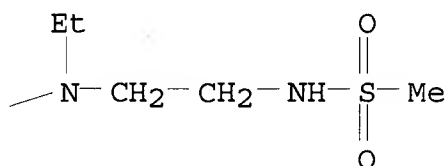


RN 236401-55-1 HCA
 CN Butanoic acid, 4-[[4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]-4-oxo-, tetradecyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



- IC ICM C09D011-02
ICA C09B023-16; C09B053-00; C09B055-00
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41
ST **ink jet ink** rub resistant; HDI
polyester polyurea polyurethane dye adduct emulsion ink; hexanediol
polyester polyurea polyurethane dye adduct emulsion ink; adipate
polyester polyurea polyurethane dye adduct emulsion ink;
aminoethylaminopropionate polyester polyurea polyurethane dye adduct
emulsion ink; ionic polymer dye adduct **ink jet ink**
IT Abrasion-resistant materials
Dyes
(**ink-jet inks** contg. ionomer-dye
adducts for providing print with improved rub resistance)
IT Polyamides, uses
Polycarbonates, uses
Polyesters, uses
Polyethers, uses
Polyoxymethylenes, uses
Polyureas
Polyurethanes, uses
(ionic, reaction products, with dyes; **ink-jet inks** contg. ionomer-dye adducts for providing print with improved rub resistance)

- IT **Inks**
 (jet-printing; ink-jet
inks contg. ionomer-dye adducts for providing print with
 improved rub resistance)
- IT Polyurethanes, uses
 (polyester-polyoxyalkylene-polyurea-, block, ionic, reaction
 products, with dyes; **ink-jet inks**
 contg. ionomer-dye adducts for providing print with improved rub
 resistance)
- IT Polyureas
 (polyester-polyoxyalkylene-polyurethane-, block, ionic, reaction
 products, with dyes; **ink-jet inks**
 contg. ionomer-dye adducts for providing print with improved rub
 resistance)
- IT Polyurethanes, uses
 (polyester-polyurea-, ionic, reaction products, with dyes;
ink-jet inks contg. ionomer-dye
 adducts for providing print with improved rub resistance)
- IT Polyoxyalkylenes, uses
 (polyester-polyurea-polyurethane-, block, ionic, reaction
 products, with dyes; **ink-jet inks**
 contg. ionomer-dye adducts for providing print with improved rub
 resistance)
- IT Polyurethanes, uses
 (polyoxyalkylene-polyurea-, block, ionic, reaction products, with
 dyes; **ink-jet inks** contg.
 ionomer-dye adducts for providing print with improved rub
 resistance)
- IT Polyesters, uses
 (polyoxyalkylene-polyurea-polyurethane-, block, ionic, reaction
 products, with dyes; **ink-jet inks**
 contg. ionomer-dye adducts for providing print with improved rub
 resistance)
- IT Ionomers
 (reaction products, with dyes; **ink-jet**
inks contg. ionomer-dye adducts for providing print with
 improved rub resistance)
- IT 82914-82-7P 236401-45-9P
 (adduct precursor; **ink-jet inks**
 contg. ionomer-dye adducts for providing print with improved rub
 resistance)
- IT 57-13-6DP, Urea, ionic polyoxyalkylene-polyester-polyurea-
 polyurethanes, reaction products with dyes, uses 71-36-3DP,
 Butanol, reaction products with ethylene oxide-propylene oxide
 copolymers, polyurethane-forming monomers, and dyes 75-21-8DP,
 Ethylene oxide, ionic polyoxyalkylene-polyurea-polyurethanes,
 reaction products with dyes, uses 75-56-9DP, Propylene oxide,
 ionic polyoxyalkylene-polyurea-polyurethanes, reaction products with
 dyes, uses 88-99-3DP, Phthalic acid, ionic polyoxyalkylene-
 polyester-polyurea-polyurethanes, reaction products with dyes, uses
 107-21-1DP, Ethylene glycol, ionic polyoxyalkylene-polyester-
 polyurea-polyurethanes, reaction products with dyes, uses

124-04-9DP, Adipic acid, ionic polyoxyalkylene-polyester-polyurea-polyurethanes, reaction products with dyes, uses 302-01-2DP, Hydrazine, ionic polyoxyalkylene-polyurea-polyurethanes, reaction products with dyes, uses 822-06-0DP, HDI, ionic polyoxyalkylene-polyester-polyurea-polyurethanes, reaction products with dyes 7631-90-5DP, Sodium bisulfite, reaction products with polypropylene glycol butenediol ether, polyurethane-forming monomers, and dyes 26471-62-5DP, TDI, ionic polyoxyalkylene-polyurea-polyurethanes, reaction products with dyes 37353-75-6DP, Propoxylated bisphenol A, ionic polyoxyalkylene-polyester-polyurea-polyurethanes, reaction products with dyes 82914-82-7DP, reaction products with dyes 118150-18-8DP, reaction products with ionomers 176590-80-0DP, ionic polyoxyalkylene-polyester-polyurea-polyurethanes, reaction products with dyes **226213-46-3DP**, reaction products with ionomers 236401-45-9DP, reaction products with dyes 236401-46-0DP, reaction products with ionomers **236401-47-1DP**, reaction products with ionomers 236401-48-2DP, reaction products with ionomers 236401-49-3DP, reaction products with ionomers 236401-50-6DP, reaction products with ionomers 236401-51-7DP, reaction products with ionomers 236401-52-8DP, reaction products with ionomers **236401-53-9DP**, reaction products with ionomers **236401-54-0DP**, reaction products with ionomers **236401-55-1DP**, reaction products with ionomers 236401-56-2DP, reaction products with ionomers (ink-jet inks contg. ionomer-dye adducts for providing print with improved rub resistance)

L11 ANSWER 22 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 131:145855 HCA

TITLE: Ink jet recording material

INVENTOR(S): with good light resistance and bright color
Ishii, Fumio; Oya, Hidenobu; Daiba, Shinichi;
Oshiyama, Tomohiro

PATENT ASSIGNEE(S): Konica Co., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.

CODEN: JKXXAF

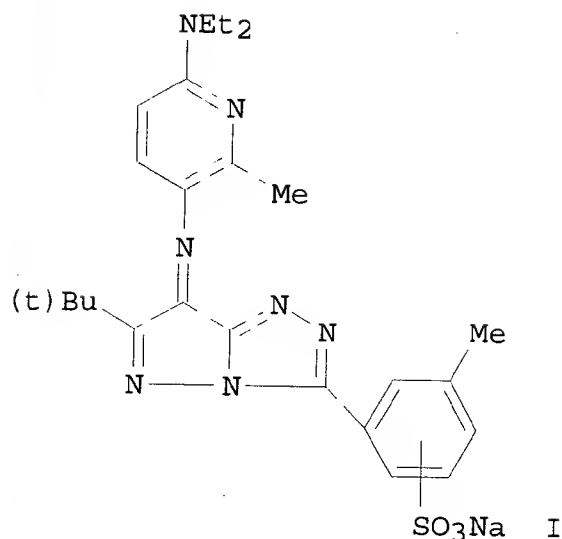
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

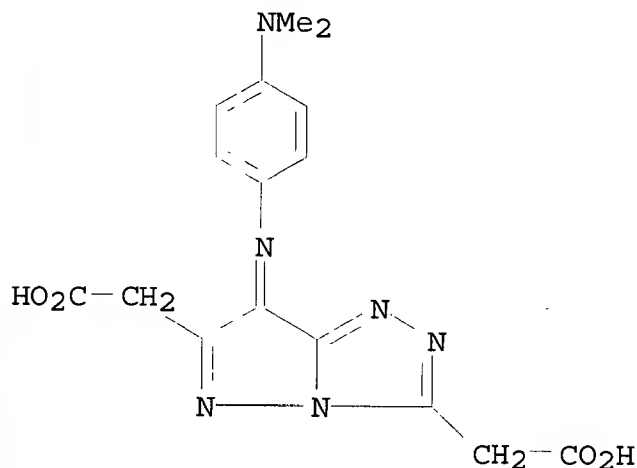
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 11209668	A2	19990803	JP 1998-15708	19980128
OTHER SOURCE(S): MARPAT 131:145855				
GI				

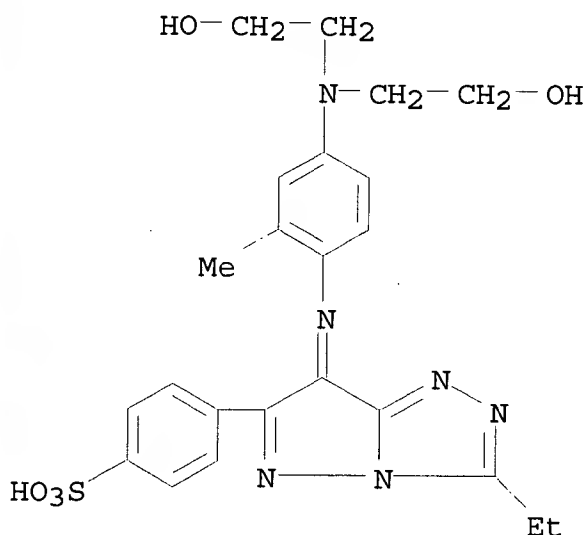


- AB Title recording material comprises a compd. which contains two arom. ring connected with an arom. group by two bonds for each ring. Thus, Acid Yellow 23 2 and I 2 parts formed an ink, showing light resistance 16C and excellent bright color.
- IT 234440-88-1 234440-91-6 234440-93-8
 234440-94-9 234440-95-0 234440-97-2
 234440-98-3 234771-39-2 234771-41-6
 (ink jet recording material with good light resistance and bright color)
- RN 234440-88-1 HCA
- CN 7H-Pyrazolo[5,1-c]-1,2,4-triazole-3,6-diacetic acid,
 7-[[4-(dimethylamino)phenyl]imino]-, disodium salt (9CI) (CA INDEX NAME)



• 2 Na

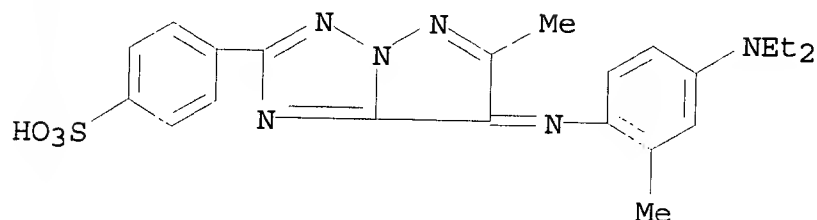
RN 234440-91-6 HCA
 CN Benzenesulfonic acid, 4-[7-[[4-[bis(2-hydroxyethyl)amino]-2-methylphenyl]imino]-3-ethyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-6-yl]-, monosodium salt (9CI) (CA INDEX NAME)



• Na

RN 234440-93-8 HCA
 CN Benzenesulfonic acid, 4-[7-[[4-(diethylamino)-2-methylphenyl]imino]-

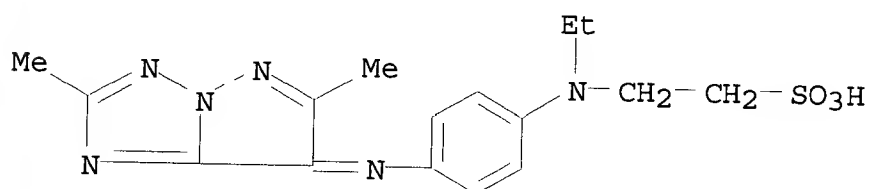
6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]-, sodium salt (9CI)
(CA INDEX NAME)



• Na

RN 234440-94-9 HCA

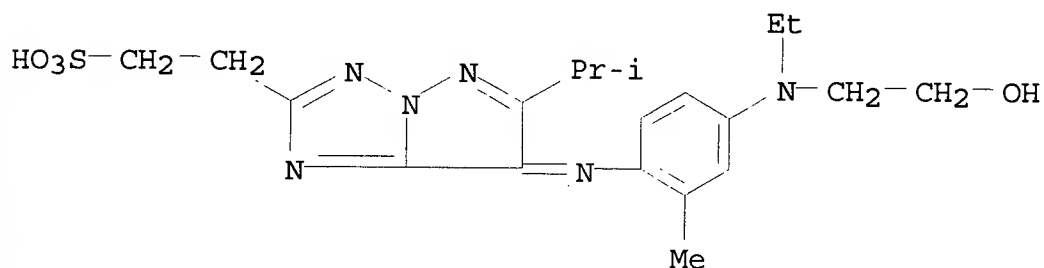
CN Ethanesulfonic acid, 2-[[4-[(2,6-dimethyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene)amino]phenyl]ethylamino]-, sodium salt (9CI) (CA INDEX NAME)



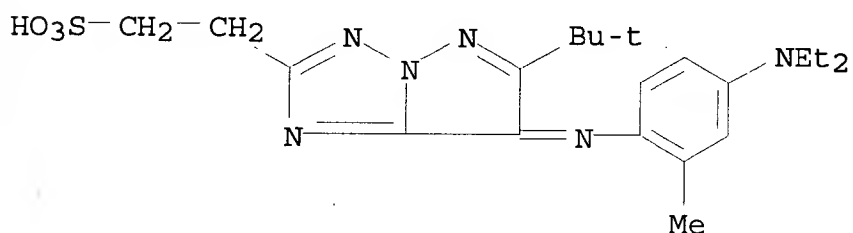
• Na

RN 234440-95-0 HCA

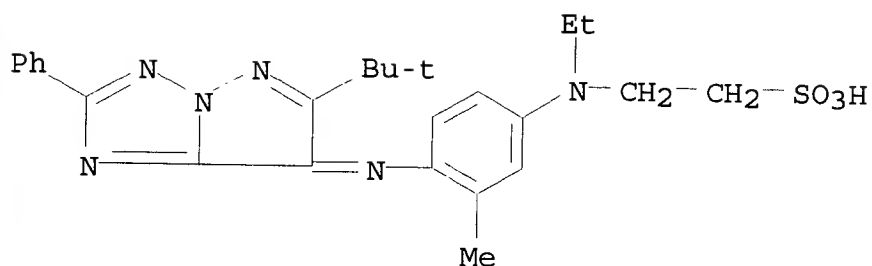
CN 7H-Pyrazolo[1,5-b][1,2,4]triazole-2-ethanesulfonic acid, 7-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-6-(1-methylethyl)-, monosodium salt (9CI) (CA INDEX NAME)



RN 234440-97-2 HCA
 CN 7H-Pyrazolo[1,5-b][1,2,4]triazole-2-ethanesulfonic acid,
 7-[[4-(diethylamino)-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-,
 sodium salt (9CI) (CA INDEX NAME)

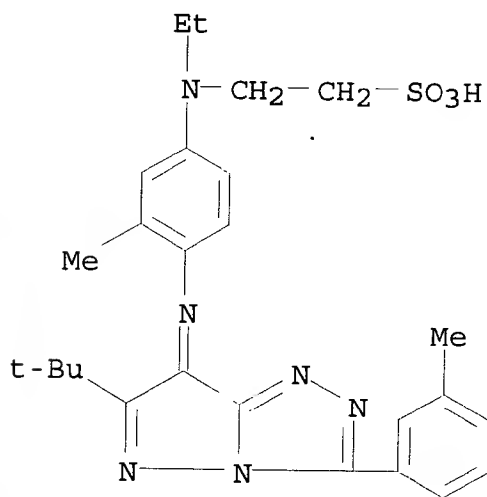


RN 234440-98-3 HCA
 CN Ethanesulfonic acid, 2-[[4-[[6-(1,1-dimethylethyl)-2-phenyl-7H-
 pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-
 methylphenyl]ethylamino]-, sodium salt (9CI) (CA INDEX NAME)



• Na

RN 234771-39-2 HCA
 CN Benzenesulfonic acid, [6-(1,1-dimethylethyl)-7-[[4-[ethyl(2-sulfoethyl)amino]-2-methylphenyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]methyl-, disodium salt (9CI) (CA INDEX NAME)

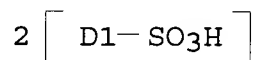


• 2 Na

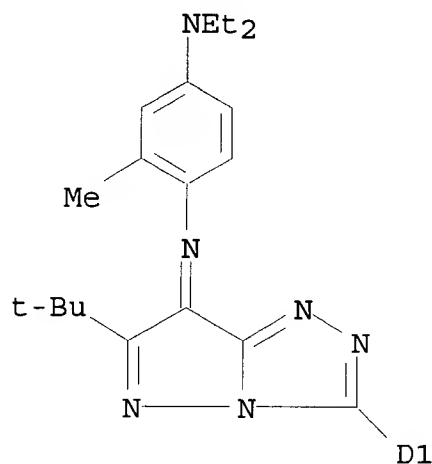
D1-SO₃H

RN 234771-41-6 HCA
 CN Benzenedisulfonic acid, [7-[[4-(diethylamino)-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-, disodium salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



IC ICM C09D011-00
 ICS B41M005-00; C09B057-00; C07D487-02; C07D487-04; C07D491-153;
 C07D493-04; C07D495-04
 CC 42-12 (Coatings, Inks, and Related Products)
 ST **ink jet** recording material
 IT **Inks**
 (jet-printing, ink jet
 recording material with good light resistance and bright color)
 IT 1934-21-0, Acid Yellow 23 2650-18-2, Acid Blue 9 3520-42-1, Acid
 Red 52 12220-28-9, C.I. Acid Red 289 12222-51-4, Direct Red 227
 50925-42-3, Direct Yellow 86 98114-32-0, Reactive red 180
 189686-86-0 234440-86-9 **234440-88-1** 234440-89-2
 234440-90-5 **234440-91-6** **234440-93-8**

234440-94-9 234440-95-0 234440-96-1
 234440-97-2 234440-98-3 234771-38-1
 234771-39-2 234771-40-5 234771-41-6

(ink jet recording material with good light
 resistance and bright color)

L11 ANSWER 23 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 131:46147 HCA

TITLE: Magenta inks containing water-soluble
 pyrazolotriazole dyes and ink-
 jet printing method using them

INVENTOR(S): Arai, Kazumi; Kamio, Takayoshi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

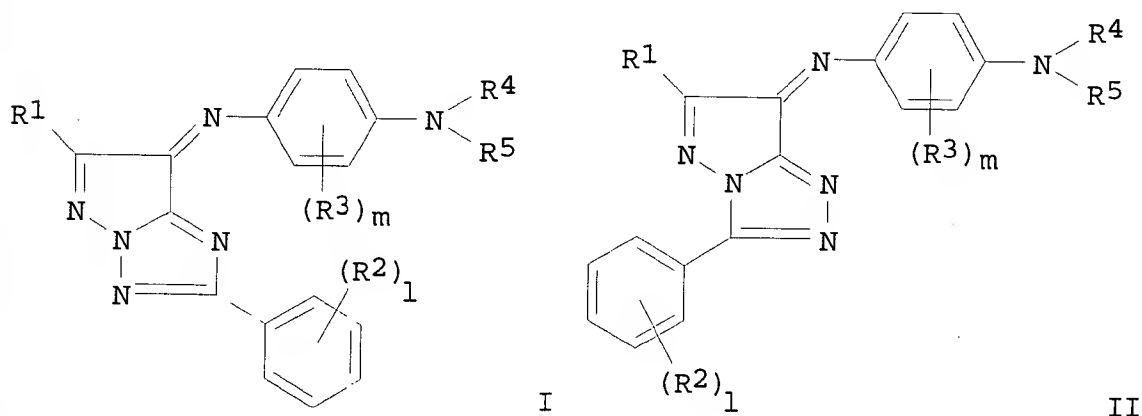
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11158422	A2	19990615	JP 1997-324877	19971126
OTHER SOURCE(S): MARPAT 131:46147				
GI				



AB The inks contain I or II (R1-3 = H, halo, alkyl, cycloalkyl, aralkyl, aryl, heterocycle, alkoxy, aryloxy, cyano, acylamino, sulfonylamino, ureido, alkoxy-carbonylamino, alkylthio, arylthio, alkoxy-carbonyl, carbamoyl, sulfamoyl, sulfonyl, acyl, amino; R4, R5 = H, alkyl, cycloalkyl, aralkyl, aryl; R4 and R5, R3 and R4, or R3 and R5 may form a ring; .gtoreq.1 of R1-5 is water-sol. group; 1, m = 0-4). Thus, an ink contg. I [R1 = Me, R2 = p-NHAc, R4 = Et, R5 =

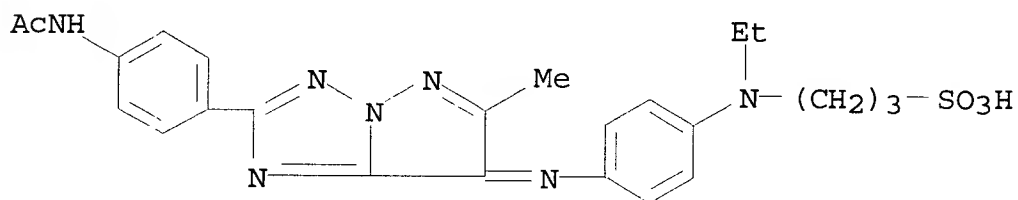
(CH₂)₃SO₃K, m = 0] 4, diethylene glycol 9, tetraethylene glycol Bu ether 9, glycerin 7, diethanolamine 1, and H₂O 70 parts was used in **ink-jet printing** to give magenta images with good lightfastness.

IT 227466-16-2 227466-17-3 227466-18-4
227466-19-5 227466-20-8 227466-21-9
227466-23-1

(**ink-jet** magenta **inks** contg.
water-sol. pyrazolotriazole dyes)

RN 227466-16-2 HCA

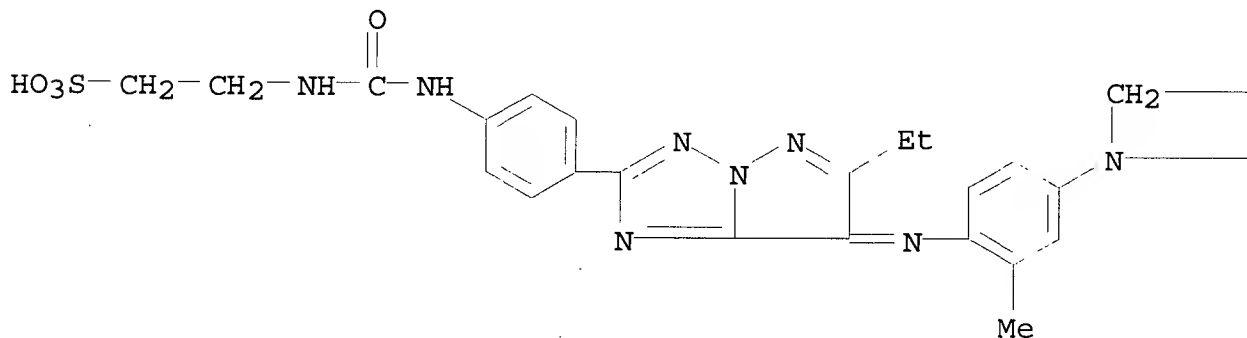
CN 1-Propanesulfonic acid, 3-[[4-[[2-[4-(acetylamino)phenyl]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]ethylamino]-, monopotassium salt (9CI) (CA INDEX NAME)



• K

RN 227466-17-3 HCA

CN 1-Propanesulfonic acid, 3-[[4-[[6-ethyl-2-[4-[[[(2-sulfoethyl)amino]carbonyl]amino]phenyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-methylphenyl](2-hydroxyethyl)amino]-, disodium salt (9CI) (CA INDEX NAME)



PAGE 1-A

• 2 Na

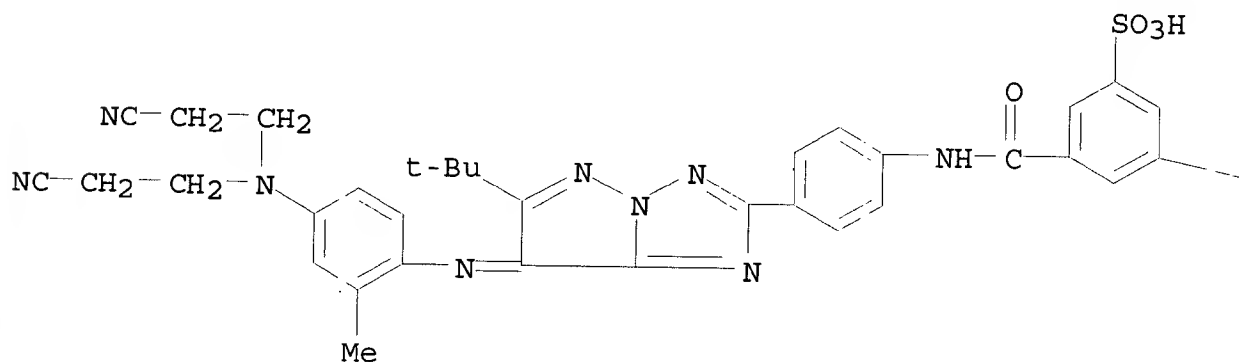
PAGE 1-B

— CH₂—OH— (CH₂)₃—SO₃H

RN 227466-18-4 HCA

CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[bis(2-cyanoethyl)amino]-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI)
(CA INDEX NAME)

PAGE 1-A



• 2 Na

PAGE 1-B

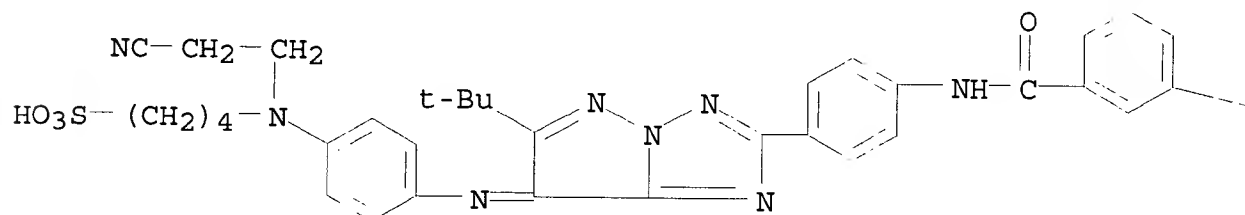
— SO₃H

RN 227466-19-5 HCA

CN Benzenesulfonic acid, 3-[[[4-[7-[[4-[(2-cyanoethyl)(4-sulfobutyl)amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-

b) [1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI)
(CA INDEX NAME)

PAGE 1-A

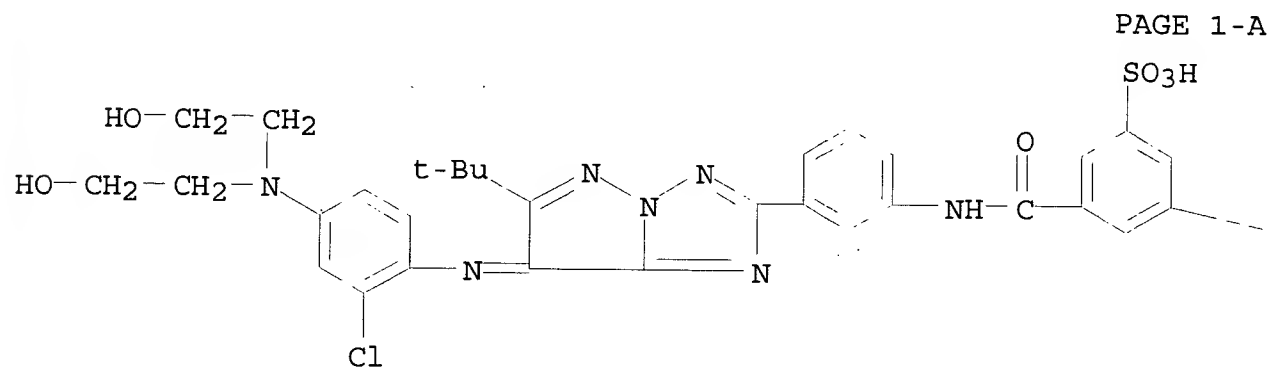


• 2 Na

PAGE 1-B

—SO₃H

RN 227466-20-8 HCA
CN 1,3-Benzenedisulfonic acid, 5-[[[3-[7-[[4-[bis(2-hydroxyethyl)amino]-2-chlorophenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI)
(CA INDEX NAME)

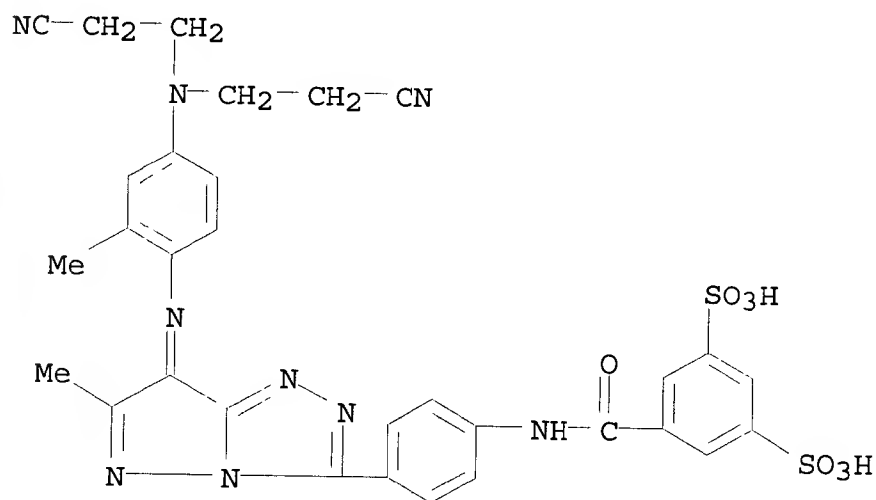


• 2 Na

PAGE 1-B

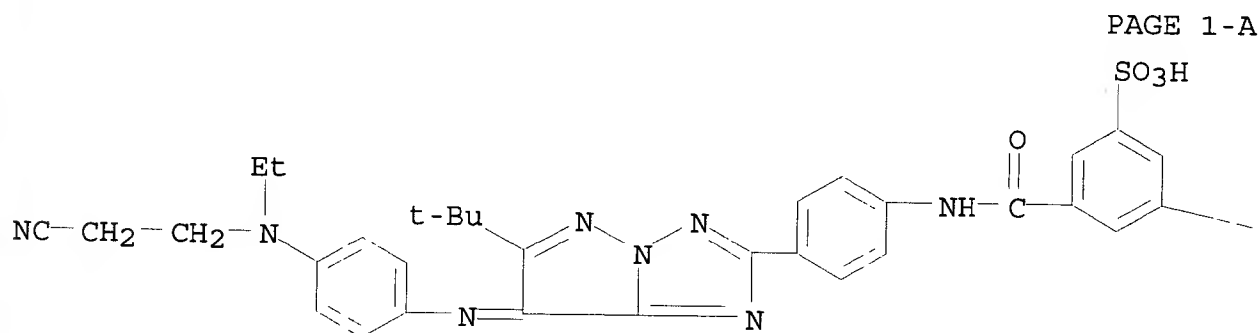
— SO_3H

RN 227466-21-9 HCA
 CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[bis(2-cyanoethyl)amino]-2-methylphenyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)



• 2 Na

RN 227466-23-1 HCA
 CN 1,3-Benzenedisulfonic acid, 5-[[[4-[7-[[4-[(2-cyanoethyl)ethylamino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]phenyl]amino]carbonyl]-, disodium salt (9CI) (CA INDEX NAME)



• 2 Na

PAGE 1-B

—SO₃H

IC ICM C09D011-00
ICS B41M005-00; C09B026-02; C09B057-00
CC 42-12 (Coatings, Inks, and Related Products)
ST pyrazolotriazole dye magenta **ink jet**
printing
IT **Ink-jet printing**
(**ink-jet** magenta **inks** contg.
water-sol. pyrazolotriazole dyes)
IT **Inks**
(**jet-printing**; **ink-jet**
magenta **inks** contg. water-sol. pyrazolotriazole dyes)
IT **Dyes**
(water-sol.; **ink-jet** magenta **inks**
contg. water-sol. pyrazolotriazole dyes)
IT 55447-93-3P
(**ink-jet** magenta **inks** contg.
water-sol. pyrazolotriazole dyes)
IT 227466-16-2 227466-17-3 227466-18-4
227466-19-5 227466-20-8 227466-21-9
227466-23-1
(**ink-jet** magenta **inks** contg.
water-sol. pyrazolotriazole dyes)
IT 19089-55-5
(reaction with aminophenol deriv.; **ink-jet**
magenta **inks** contg. water-sol. pyrazolotriazole dyes)
IT 227466-22-0P
(reaction with nitroso compd.; **ink-jet**
magenta **inks** contg. water-sol. pyrazolotriazole dyes)
IT 152828-25-6
(reaction with sodiosulfobenzoic acid deriv.; **ink-**
jet magenta **inks** contg. water-sol.
pyrazolotriazole dyes)

L11 ANSWER 24 OF 29 HCA COPYRIGHT 2002 ACS
ACCESSION NUMBER: 129:82758 HCA
TITLE: **Inkjet** inks containing polymer dyes
INVENTOR(S): Helling, Guenter
PATENT ASSIGNEE(S): Agfa-Gevaert A.-G., Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent

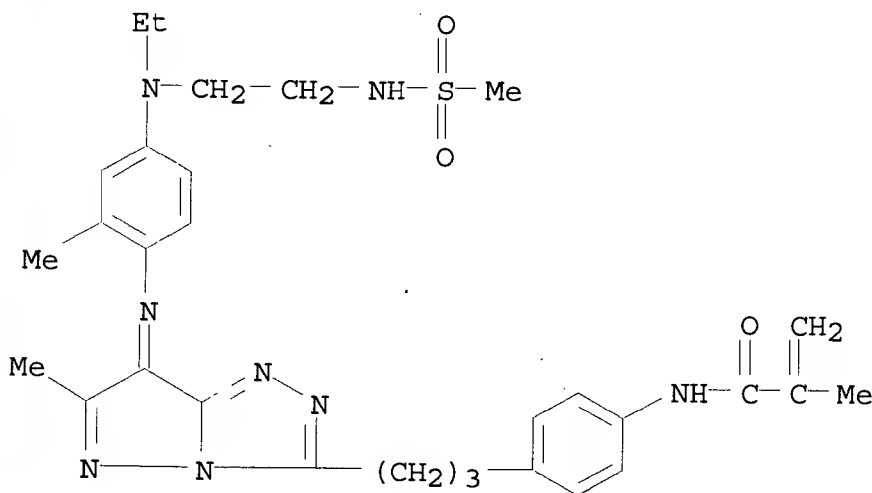
LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	DE 19651689	A1	19980618	DE 1996-19651689	19961212
AB	The inkjet inks contain polymers, with azomethine or indoaniline dye substituents, in a latex or dispersion form. The printed impressions have good stability properties. Thus, a terpolymer was prepd. from Bu acrylate, 11-methacrylamidoundecanoic acid, and a heterocyclic acrylamide deriv. contg. a Cl substituent and this monomer was coupled with a substituted p-phenylenediamine to give an azomethine function, resulting in a blue-green latex.				
IT	209345-72-2DP , reaction products with 4-[N-ethyl-N-[2-(methylsulfonylamino)ethyl]amino]-2-methylaniline (prepn. of polymer dye derivs. for aq. inkjet inks)				
RN	209345-72-2 HCA				
CN	Undecanoic acid, 11-[(2-methyl-1-oxo-2-propenyl)amino]-, polymer with butyl 2-propenoate and N-[4-[3-[7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]propyl]phenyl]-2-methyl-2-propenamide (9CI) (CA INDEX NAME)				

CM 1

CRN 209345-71-1

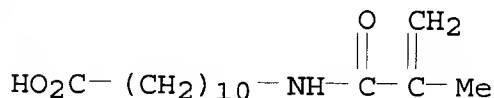
CMF C30 H38 N8 O3 S



CM 2

CRN 59178-93-7

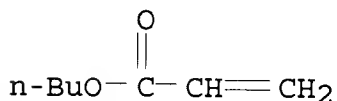
CMF C15 H27 N O3



CM 3

CRN 141-32-2

CMF C7 H12 O2



- IC ICM C09D011-00
ICS C09B069-10; C09B055-00; C09B057-00
- CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 38, 42
- ST polymer dye azomethine indoaniline latex ink; **jet printing ink** polymer dye deriv
- IT Dyes
(azomethine and indoaniline; prepn. of polymer dye derivs. for aq. **inkjet** inks)
- IT Polyurethanes, uses
(polyester-polyurea-, block; in polymer dye deriv. compns. for aq. **inkjet** inks)
- IT Polyureas
(polyester-polyurethane-, block; in polymer dye deriv. compns. for aq. **inkjet** inks)
- IT Polyesters, uses
(polyurea-polyurethane-, block; in polymer dye deriv. compns. for aq. **inkjet** inks)
- IT **Ink-jet inks**
(water-thinned; prepn. of polymer dye derivs. for)
- IT 9003-32-1, Polyethylacrylate 25767-47-9, Butylacrylate-styrene copolymer 181478-84-2, 2-Acrylamido-2-methylpropanesulfonic acid-butyl acrylate-methyl methacrylate copolymer 209345-77-7, Adipic acid-1,4-butanediol-hexamethylene diisocyanate-N-(2-sulfoethyl)ethylenediamine block copolymer
(in polymer dye deriv. compns. for aq. **inkjet** inks)
- IT 92-09-1DP, reaction products with acrylic polymers contg. chlorine or other labile groups **209345-72-2DP**, reaction products with 4-[N-ethyl-N-[2-(methylsulfonylamino)ethyl]amino]-2-methylaniline 209345-74-4DP, reaction products with 4-[N-ethyl-N-[2-(methylsulfonylamino)ethyl]amino]-2-methylaniline 209345-76-6DP, reaction products with 4-[N-ethyl-N-[2-(methylsulfonylamino)ethyl]amino]-2-methylaniline
(prepn. of polymer dye derivs. for aq. **inkjet** inks)

L11 ANSWER 25 OF 29 HCA COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 127:235835 HCA
 TITLE: **Jet ink** compositions giving
 lightfast color images
 INVENTOR(S): Morimoto, Hitoshi; Oya, Hidenobu; Onodera,
 Akira; Ishibashi, Daisuke; Ninomya, Hidetaka
 PATENT ASSIGNEE(S): Konica Co., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09217033	A2	19970819	JP 1996-22448	19960208

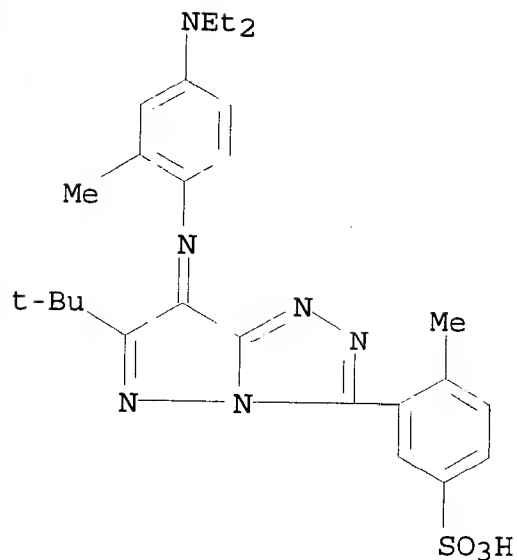
OTHER SOURCE(S): MARPAT 127:235835

AB The title compns. contain colorants and (R1R2NOH)nMm (R1, R2 = H, alkyl, alkoxy, alkoxycarbonyl, carbamoyl, acyl; n = 1-3; m = 0-2; M = counter salt), e.g., HON(CH2CH2SO3Na)2.

IT **195007-41-1 195007-43-3**
 (dye; **jet ink** compns. giving lightfast color images)

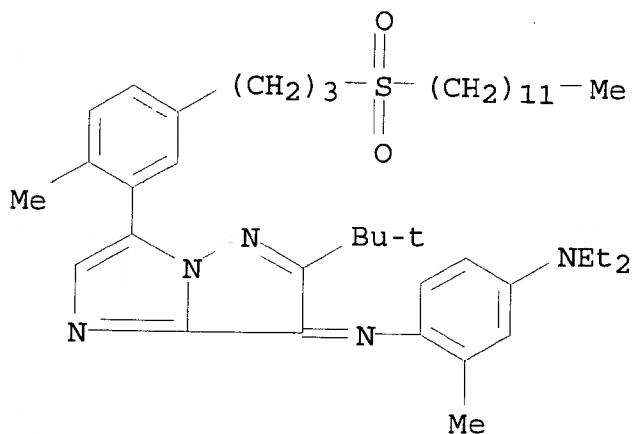
RN 195007-41-1 HCA

CN Benzenesulfonic acid, 3-[7-[[4-(diethylamino)-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-4-methyl-, potassium salt (9CI) (CA INDEX NAME)



• K

RN 195007-43-3 HCA
 CN 1,4-Benzenediamine, N1-[6-(1,1-dimethylethyl)-3-[5-[3-(dodecylsulfonyl)propyl]-2-methylphenyl]-7H-imidazo[1,2-b]pyrazol-7-ylidene]-N4,N4-diethyl-2-methyl- (9CI) (CA INDEX NAME)

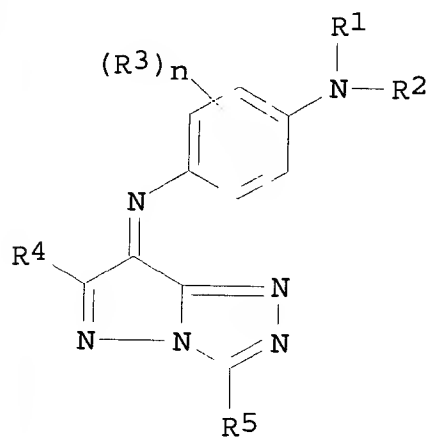


IC ICM C09D011-00
 ICS C09D011-00; D06P005-00
 CC 42-12 (Coatings, Inks, and Related Products)
 IT Dyes
Ink-jet inks
 (jet ink compns. giving lightfast color)

images)
 IT 3214-47-9 17791-81-0 71850-83-4 195007-34-2 195007-35-3
 195007-36-4 195007-37-5 195007-38-6 195007-39-7 195007-40-0
 195007-41-1 195007-42-2 195007-43-3
 195007-44-4 195007-45-5 195007-46-6 195007-47-7 195007-48-8
 195007-49-9 195007-50-2 195124-20-0 195124-21-1 195124-22-2
 195124-23-3 195161-86-5
 (dye; jet ink compns. giving lightfast color
 images)
 IT 546-88-3 584-07-6 621-07-8 3710-84-7 7433-46-7 10039-54-0
 23873-38-3 89531-79-3 95073-63-5 98021-05-7 108203-25-4
 112275-83-9 133986-51-3 145151-32-2 170155-24-5 172527-85-4
 195007-28-4 195007-29-5 195007-30-8 195007-31-9 195007-32-0
 195007-33-1
 (jet ink compns. giving lightfast color
 images)

L11 ANSWER 26 OF 29 HCA COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 126:294702 HCA
 TITLE: Water-thinned ink-jet
 recording fluids providing lightfast color
 images with good color and dot uniformity
 INVENTOR(S): Onodera, Akira; Ninomya, Hidetaka; Ooya,
 Hidenobu; Ishibashi, Daisuke
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09059552	A2	19970304	JP 1995-220486	19950829
OTHER SOURCE(S): MARPAT 126:294702				
GI				



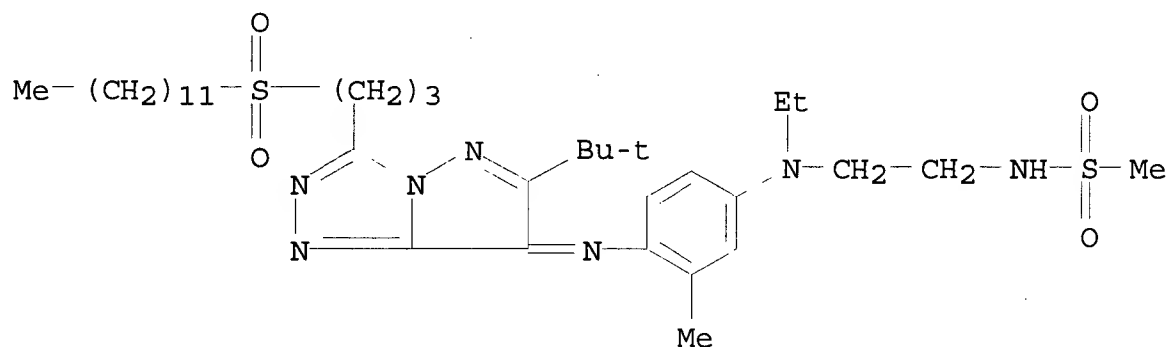
AB The title inks contain dyes I (R1, R2 = H, aliph. group, arom. group, heterocyclic group; R3 = halogen, alkyl, alkoxy, aryl, aryloxy, acylamino, sulfonylamino, ureido, urethane, alkylthio, arylthio, alkoxycarbonyl, carbamoyl, sulfamoyl, sulfonyl, acyl, amino, sulfo, carboxy; n = 0-3; R4 = aliph. group, arom. group, heterocyclic group, alkoxy, aryloxy, alkylthio, arylthio, acylamino, sulfonylamino, ureido, urethane, alkoxycarbonyl, carbamoyl, sulfamoyl, sulfonyl, acyl, amino; R5 = H, aliph., arom., heterocyclic group, alkoxycarbonyl, carbamoyl, acyl; .gtoreq.1 of substituents on R3-5 = ionic hydrophilic group at pH 8-13). An ink comprised I (R1 = Et; R2 = CH2CH2OH; R3, R4 = Me; n = 1; R5 = CH2CH2NHCOCH2CH2CO2H) 3, diethylene glycol 10, triethylene glycol monobutyl ether 7, propanol 3, and water 77 parts.

IT 158778-95-1 158778-98-4 189029-64-9
 189029-65-0 189029-66-1 189029-67-2
 189029-68-3 189029-69-4 189029-70-7
 189029-71-8 189029-72-9 189029-73-0
 189029-74-1 189029-75-2 189029-76-3
 189029-77-4 189029-78-5 189029-79-6
 189029-80-9 189029-81-0 189029-83-2
 189029-84-3 189029-86-5 189029-87-6
 189029-89-8 189029-90-1 189029-91-2
 189029-93-4

(water-thinned ink-jet recording fluids
 providing lightfast color images with good color and dot
 uniformity)

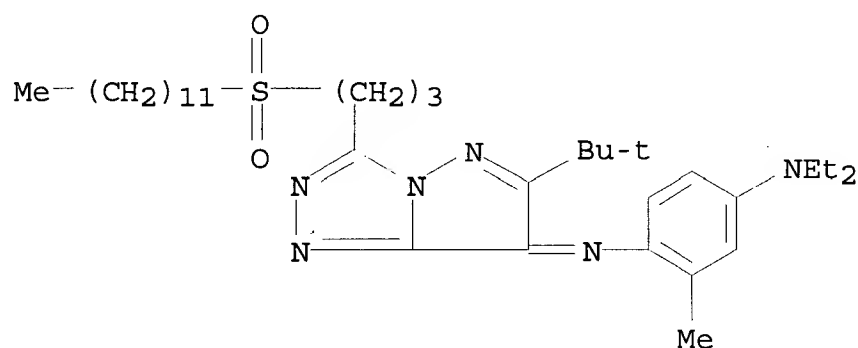
RN 158778-95-1 HCA

CN Methanesulfonamide, N-[2-[[4-[[6-(1,1-dimethylethyl)-3-[3-(dodecylsulfonyl)propyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)



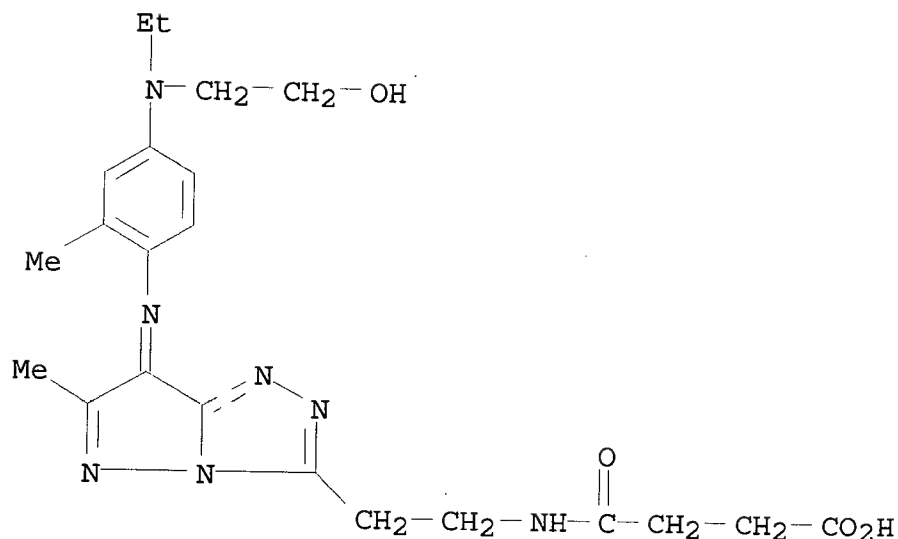
RN 158778-98-4 HCA

CN 1,4-Benzenediamine, N1-[6-(1,1-dimethylethyl)-3-[3-(dodecylsulfonyl)propyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N4,N4-diethyl-2-methyl- (9CI) (CA INDEX NAME)



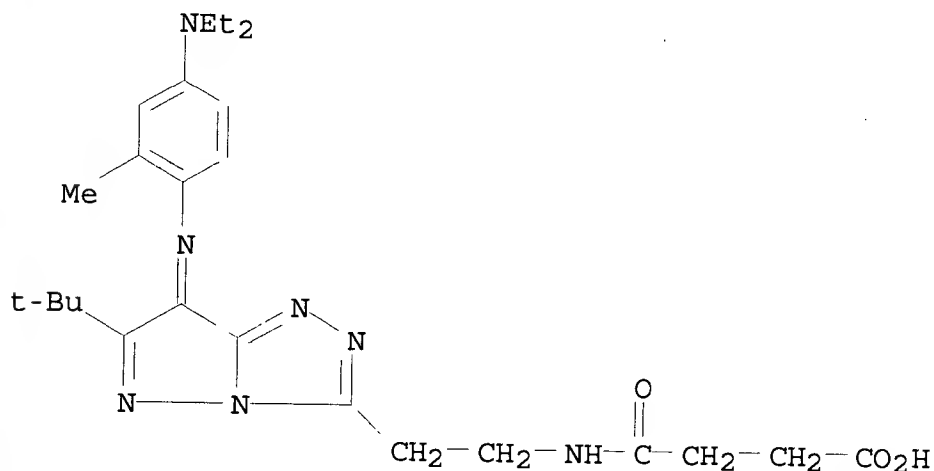
RN 189029-64-9 HCA

CN Butanoic acid, 4-[[2-[7-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]ethyl]amino]-4-oxo- (9CI) (CA INDEX NAME)



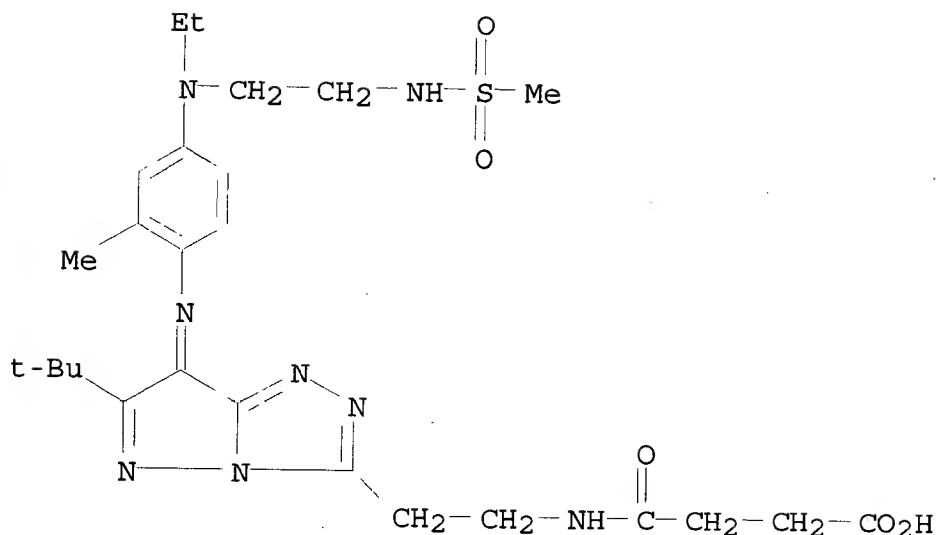
RN 189029-65-0 HCA

CN Butanoic acid, 4-[[2-[7-[[4-(diethylamino)-2-methylphenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]ethyl]amino]-4-oxo- (9CI) (CA INDEX NAME)



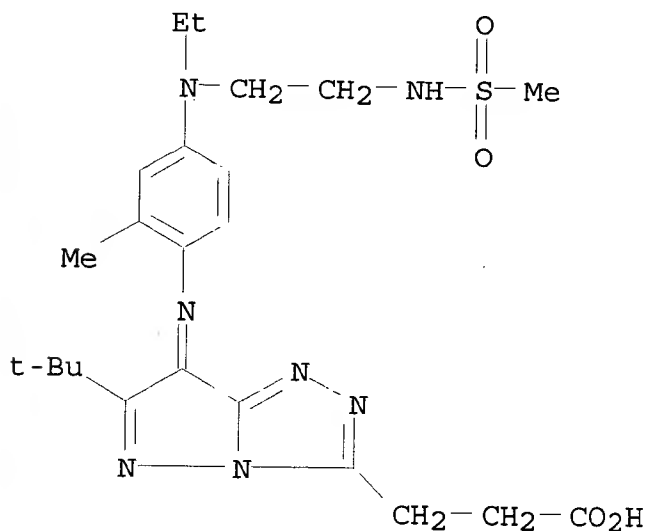
RN 189029-66-1 HCA

CN Butanoic acid, 4-[[2-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]ethyl]amino]-4-oxo- (9CI) (CA INDEX NAME)



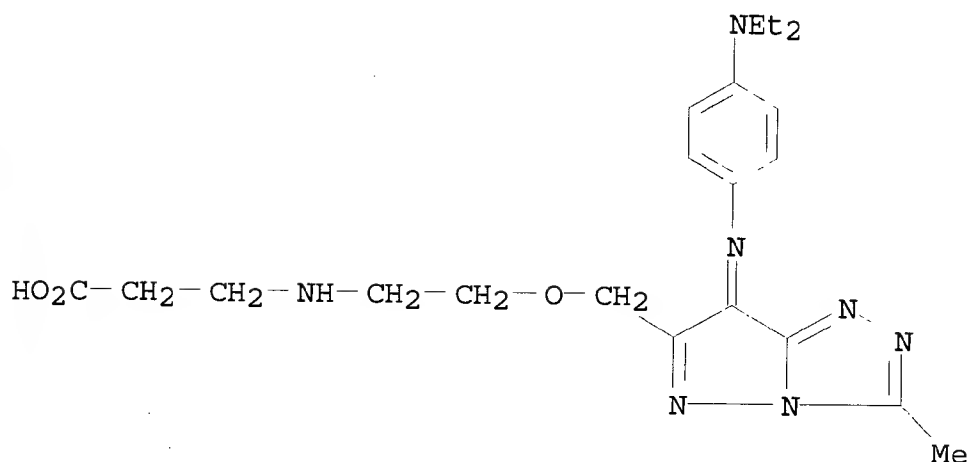
RN 189029-67-2 HCA

CN 7H-Pyrazolo[5,1-c]-1,2,4-triazole-3-propanoic acid,
6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]- (9CI) (CA INDEX NAME)



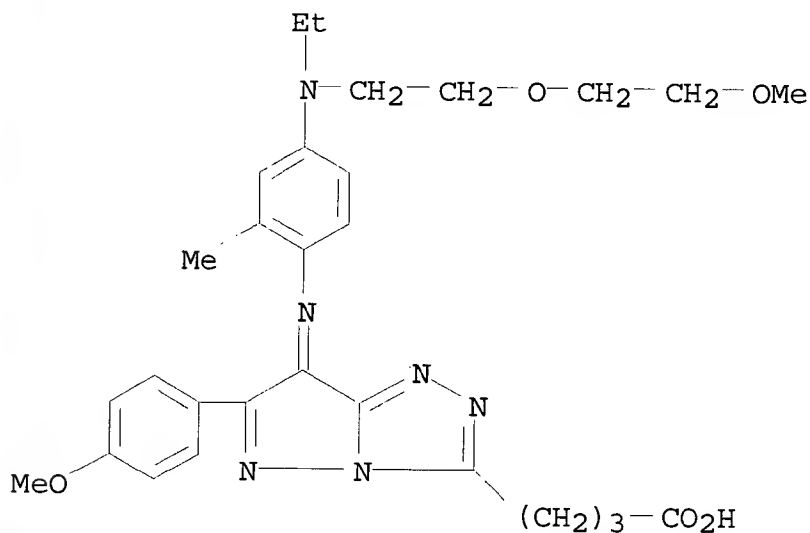
RN 189029-68-3 HCA

CN .beta.-Alanine, N-[2-[[7-[[4-(diethylamino)phenyl]imino]-3-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-6-yl]methoxy]ethyl]- (9CI) (CA INDEX NAME)



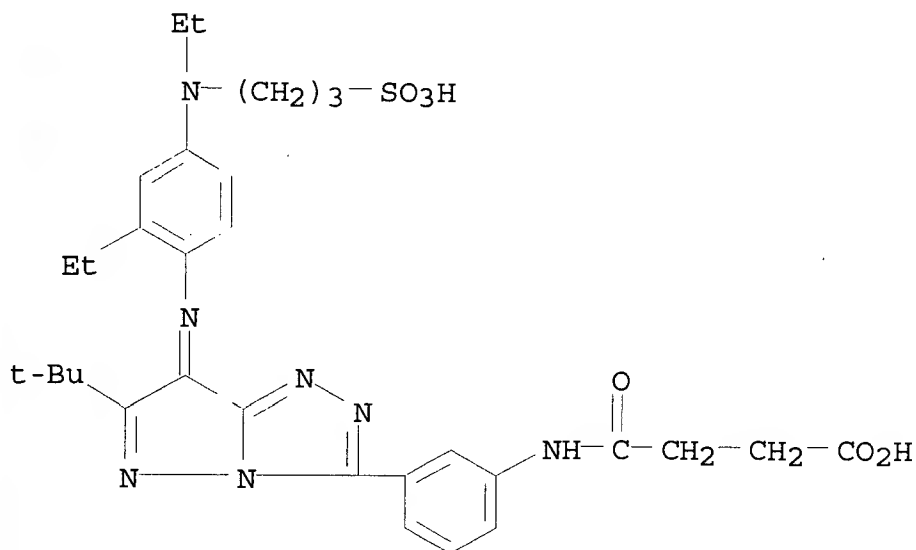
RN 189029-69-4 HCA

CN 7H-Pyrazolo[5,1-c]-1,2,4-triazole-3-butanoic acid,
7-[[4-[ethyl[2-(2-methoxyethoxy)ethyl]amino]-2-methylphenyl]imino]-6-(4-methoxyphenyl)-(9CI) (CA INDEX NAME)



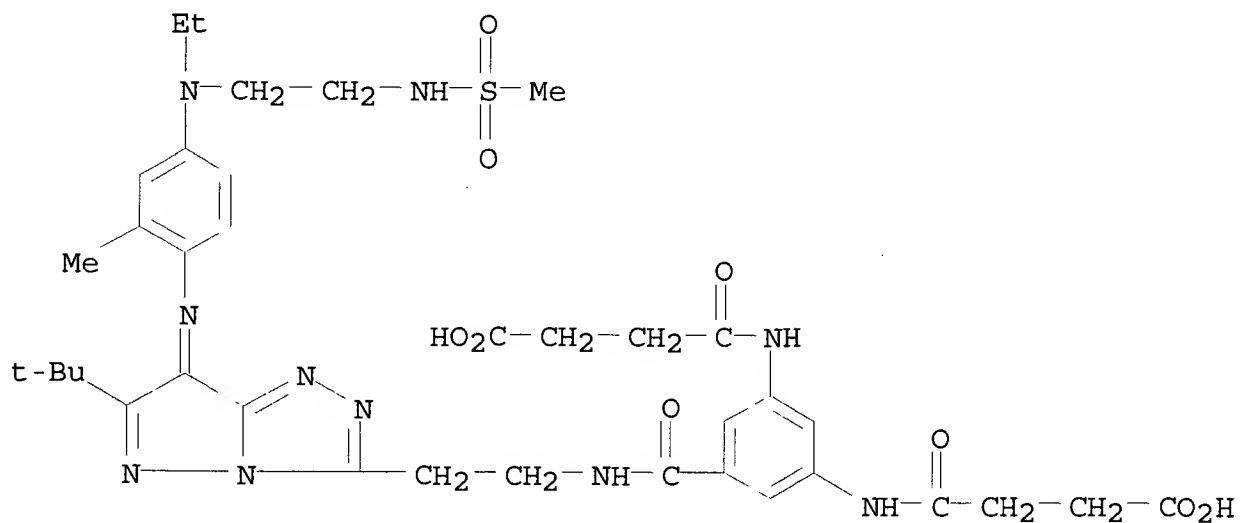
RN 189029-70-7 HCA

CN Butanoic acid, 4-[[3-[6-(1,1-dimethylethyl)-7-[[2-ethyl-4-[ethyl(3-sulfopropyl)amino]phenyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]phenyl]amino]-4-oxo-, monosodium salt (9CI) (CA INDEX NAME)



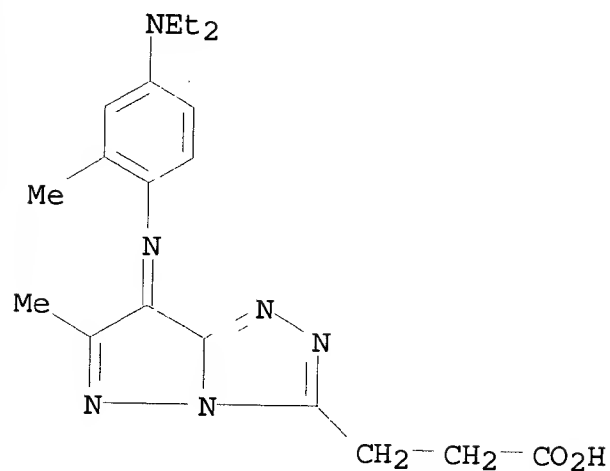
Na

RN 189029-71-8 HCA
 CN Butanoic acid, 4,4'-[[5-[[[2-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]ethyl]amino]carbonyl]-1,3-phenylene]diimino]bis[4-oxo- (9CI) (CA INDEX NAME)

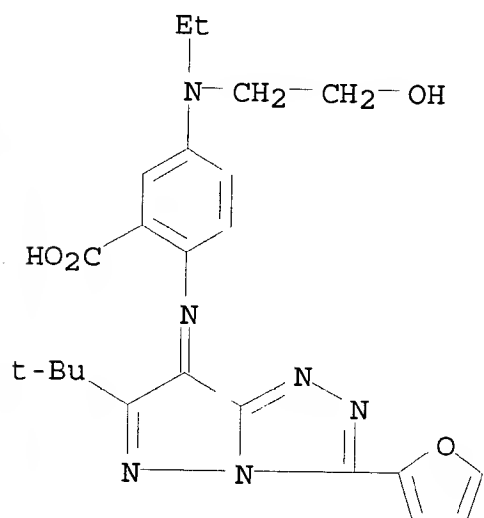


RN 189029-72-9 HCA
 CN 7H-Pyrazolo[5,1-c]-1,2,4-triazole-3-propanoic acid, 7-[[4-(diethylamino)-2-methylphenyl]imino]-6-methyl- (9CI) (CA

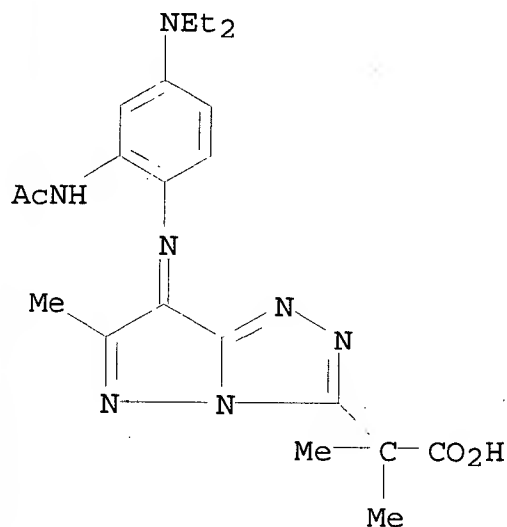
INDEX NAME)



RN 189029-73-0 HCA
 CN Benzoic acid, 2-[[6-(1,1-dimethylethyl)-3-(2-furanyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-5-[ethyl(2-hydroxyethyl)amino]- (9CI) (CA INDEX NAME)

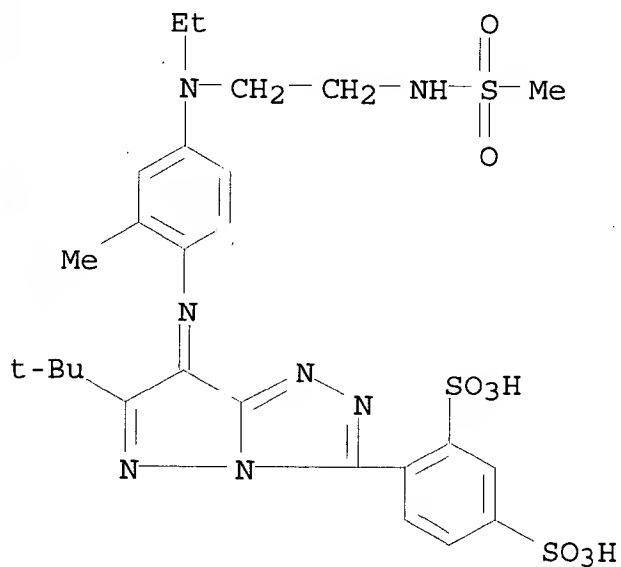


RN 189029-74-1 HCA
 CN 7H-Pyrazolo[5,1-c]-1,2,4-triazole-3-acetic acid, 7-[[2-(acetamido)-4-(diethylamino)phenyl]imino]-.alpha.,.alpha.,6-trimethyl- (9CI) (CA INDEX NAME)



RN 189029-75-2 HCA

CN 1,3-Benzenedisulfonic acid, 4-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-, disodium salt (9CI) (CA INDEX NAME)

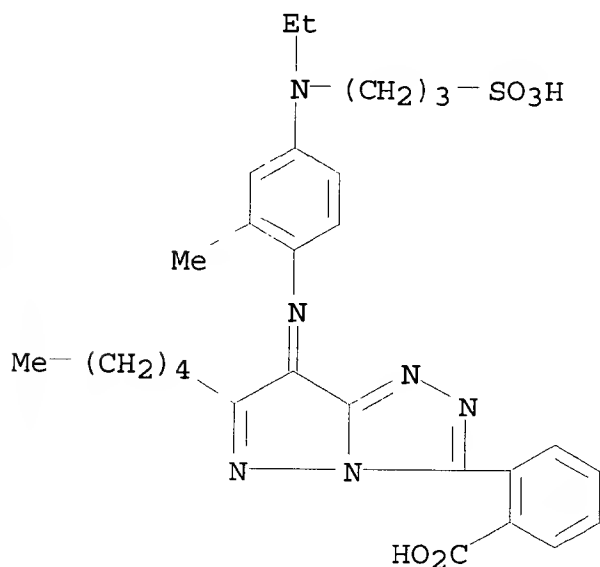


• 2 Na

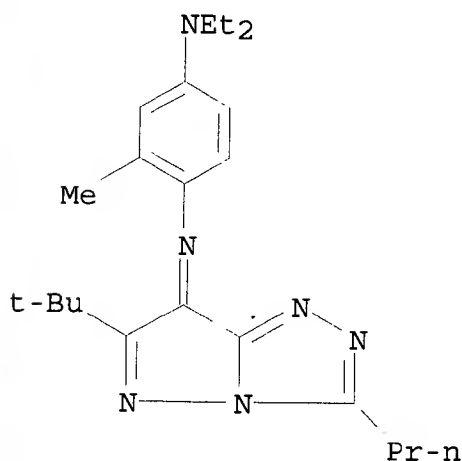
RN 189029-76-3 HCA

CN Benzoic acid, 2-[7-[[4-[ethyl(3-sulfopropyl)amino]-2-methylphenyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-, disodium salt (9CI) (CA INDEX NAME)

methylphenyl]imino]-6-pentyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-
 , monosodium salt (9CI) (CA INDEX NAME)

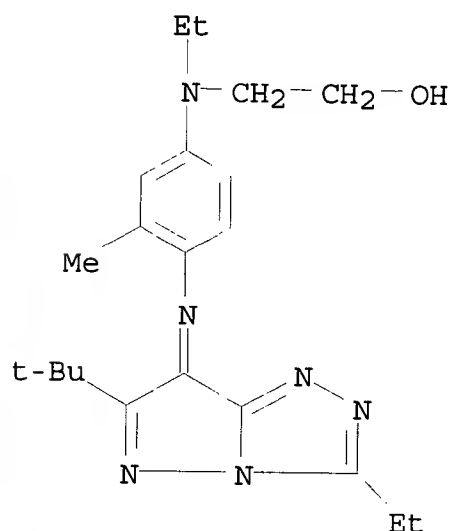


RN 189029-77-4 HCA
 CN 1,4-Benzenediamine, N1-[6-(1,1-dimethylethyl)-3-propyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N4,N4-diethyl-2-methyl- (9CI) (CA INDEX NAME)

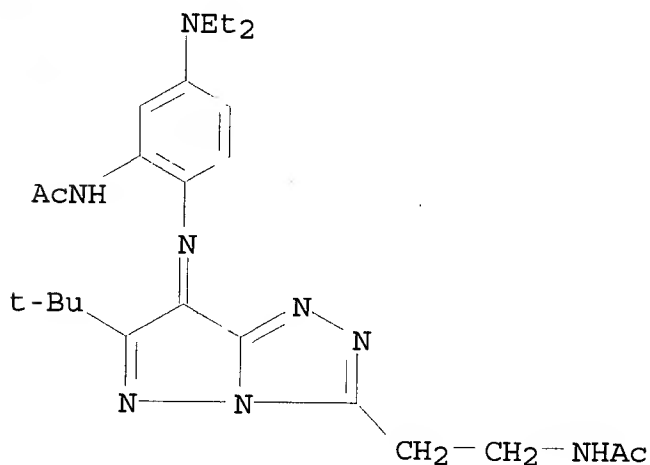


RN 189029-78-5 HCA
 CN Ethanol, 2-[[4-[[6-(1,1-dimethylethyl)-3-ethyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-methylphenyl]ethylamino]- (9CI)

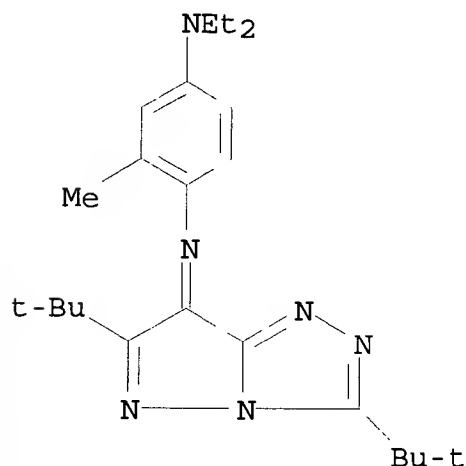
(CA INDEX NAME)



RN 189029-79-6 HCA
 CN Acetamide, N-[2-[7-[[2-(acetylamino)-4-(diethylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]ethyl]- (9CI) (CA INDEX NAME)

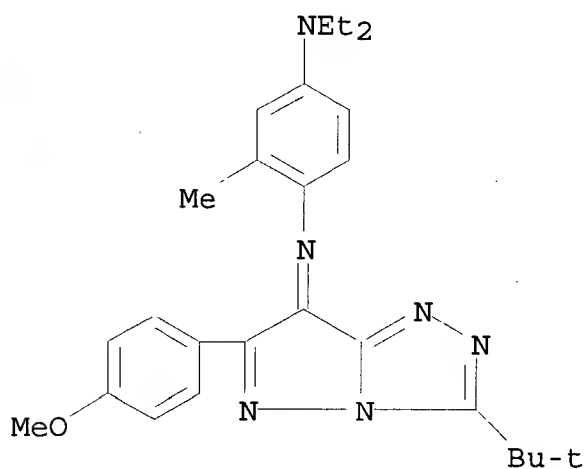


RN 189029-80-9 HCA
 CN 1,4-Benzenediamine, N1-[3,6-bis(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N4,N4-diethyl-2-methyl- (9CI) (CA INDEX NAME)



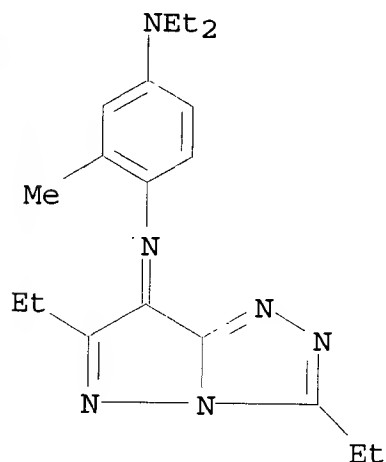
RN 189029-81-0 HCA

CN 1,4-Benzenediamine, N1-[3-(1,1-dimethylethyl)-6-(4-methoxyphenyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N4,N4-diethyl-2-methyl- (9CI) (CA INDEX NAME)

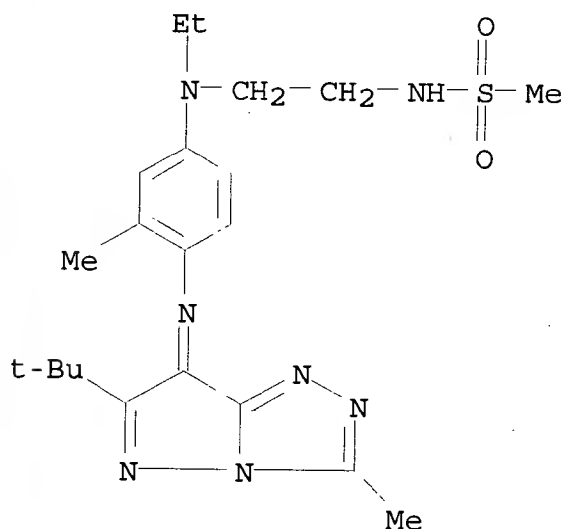


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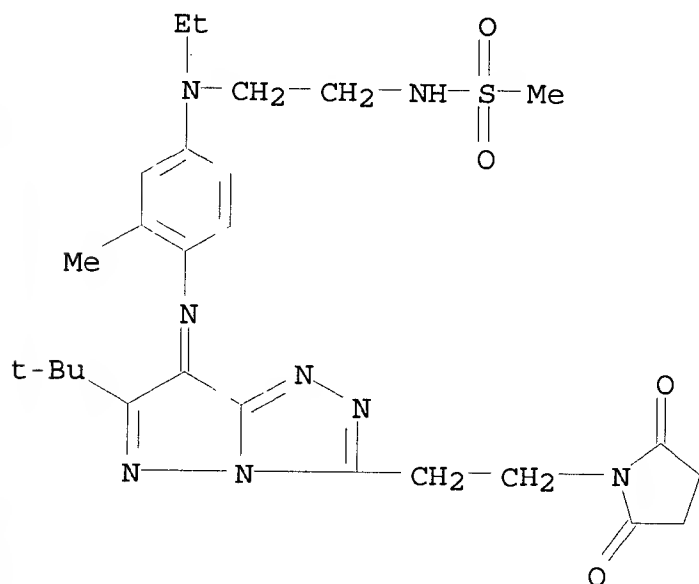
CN 1,4-Benzenediamine, N1-(3,6-diethyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)-N4,N4-diethyl-2-methyl- (9CI) (CA INDEX NAME)



RN 189029-84-3 HCA
 CN Methanesulfonamide, N-[2-[[4-[[6-(1,1-dimethylethyl)-3-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)

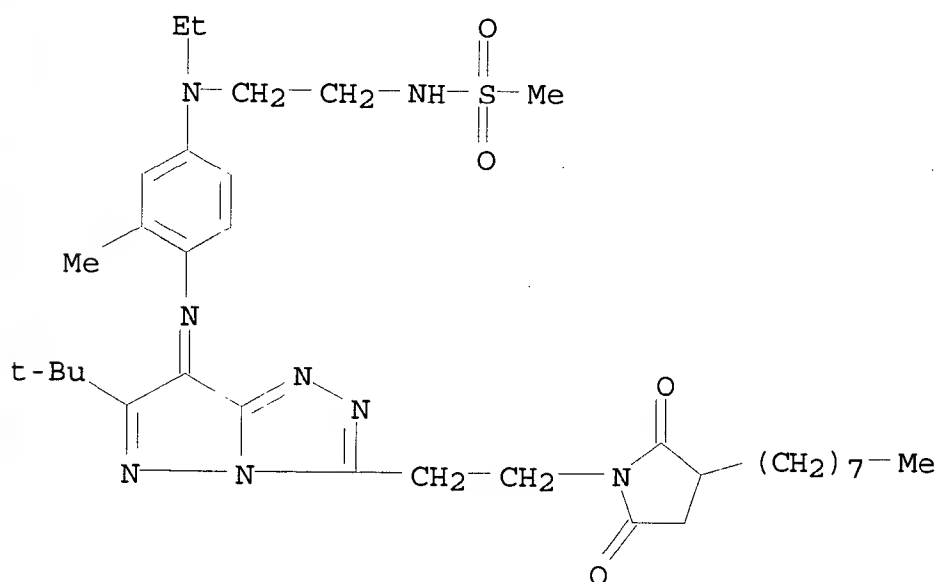


RN 189029-86-5 HCA
 CN Methanesulfonamide, N-[2-[[4-[[6-(1,1-dimethylethyl)-3-[2-(2,5-dioxo-1-pyrrolidinyl)ethyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)



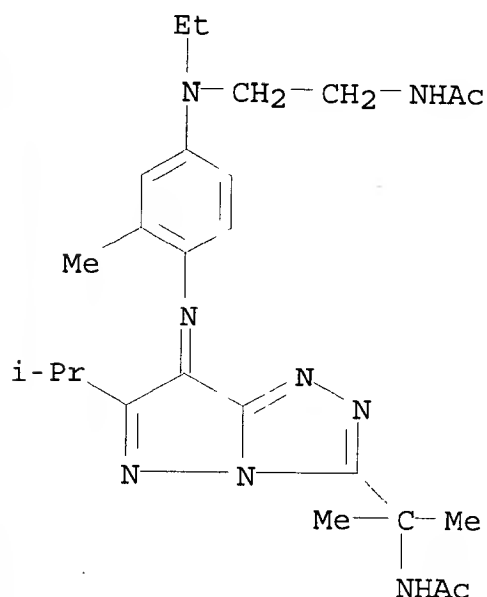
RN 189029-87-6 HCA

CN Methanesulfonamide, N-[2-[[4-[[6-(1,1-dimethylethyl)-3-[2-(3-octyl-2,5-dioxo-1-pyrrolidinyl)ethyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)

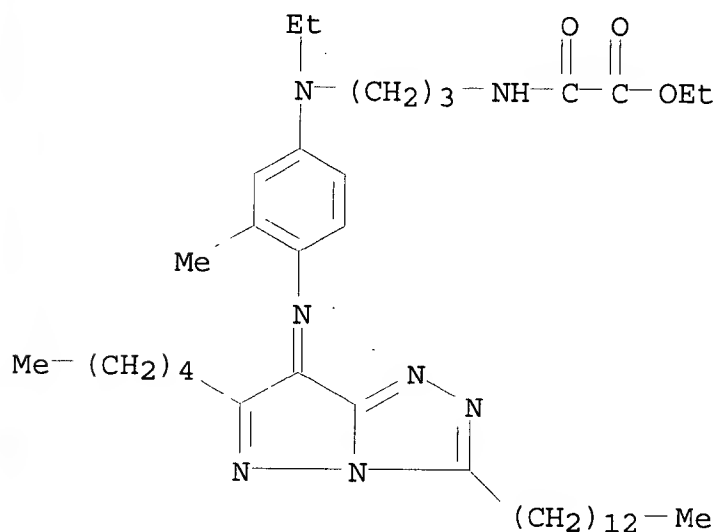


RN 189029-89-8 HCA

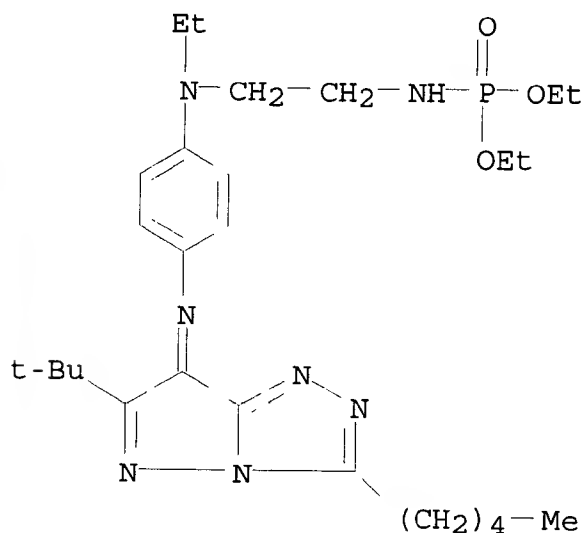
CN Acetamide, N-[1-[7-[[4-[[2-(acetylamino)ethyl]ethylamino]-2-methylphenyl]imino]-6-(1-methylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-1-methylethyl]- (9CI) (CA INDEX NAME)



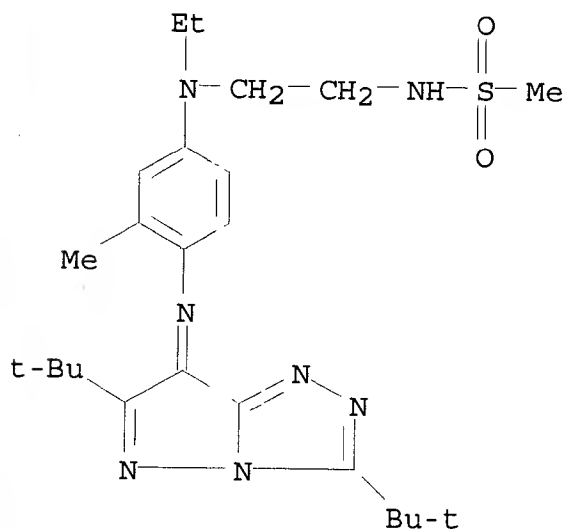
RN 189029-90-1 HCA
 CN Acetic acid, [[3-[ethyl[3-methyl-4-[(6-pentyl-3-tridecyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)amino]phenyl]amino]propyl]amino]oxo-, ethyl ester (9CI) (CA INDEX NAME)



RN 189029-91-2 HCA
 CN Phosphoramidic acid, [2-[[4-[[6-(1,1-dimethylethyl)-3-pentyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]phenyl]ethylamino]ethyl]-, diethyl ester (9CI) (CA INDEX NAME)



RN 189029-93-4 HCA
 CN Methanesulfonamide, N-[2-[[4-[[3,6-bis(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)



IC ICM C09D011-00
 ICS C09D011-02
 CC 42-12 (Coatings, Inks, and Related Products)
 ST diazotriazole dye **jet ink** lightfast
 IT Dyes
Ink-jet inks
 Light-resistant materials
 (water-thinned **ink-jet** recording fluids)

providing lightfast color images with good color and dot uniformity)

IT 9008-63-3, Formaldehyde-sodium naphthalenesulfonate copolymer
106392-12-5, Ethylene oxide-propylene oxide block copolymer
(water-thinned **ink-jet** recording fluids

providing lightfast color images with good color and dot uniformity)

IT 158778-95-1 158778-98-4 189029-64-9
189029-65-0 189029-66-1 189029-67-2
189029-68-3 189029-69-4 189029-70-7
189029-71-8 189029-72-9 189029-73-0
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189029-84-3 189029-86-5 189029-87-6
189029-89-8 189029-90-1 189029-91-2
189029-93-4

(water-thinned **ink-jet** recording fluids
providing lightfast color images with good color and dot uniformity)

L11 ANSWER 27 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 123:127687 HCA

TITLE: **Ink jet** recording method
using Diels-Alder reaction

INVENTOR(S): Tanaka, Mitsugi

PATENT ASSIGNEE(S): Fuji Photo Film Co Ltd, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

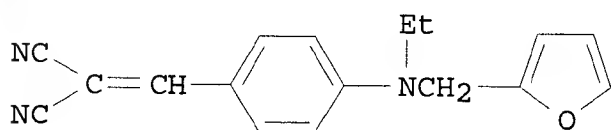
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

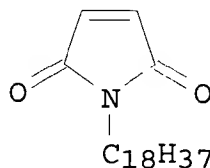
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 07061117	A2	19950307	JP 1993-230732	19930825

GI



I



II

AB **Ink jet** recording is carried out by Diels-Alder reaction between a diene (or dienophile) of a dye and a dienophile (or diene) of an ink-receiving material. High sharpness images with excellent storage stability are obtained by this method. Thus, an

ink contg. I and a receptor contg. II were used in ink
jet recording.

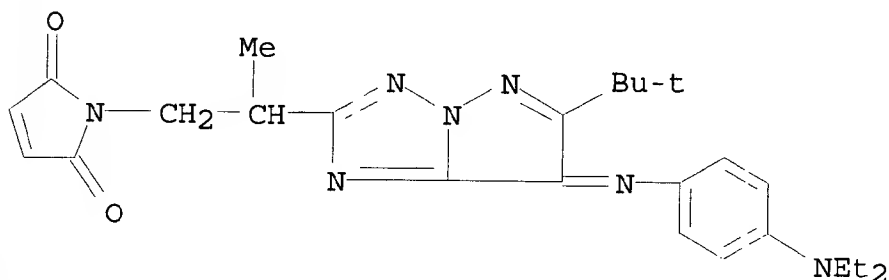
IT 158658-36-7 162785-81-1 165955-89-5
165955-93-1 165955-97-5 165956-01-4

(ink-jet printing by Diels-Alder

reaction between dienes and dienophiles of dyes and receptors)

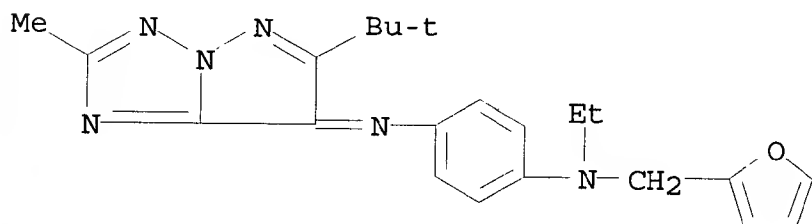
RN 158658-36-7 HCA

CN 1H-Pyrrole-2,5-dione, 1-[2-[7-[[4-(diethylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl] - (9CI)
(CA INDEX NAME)



RN 162785-81-1 HCA

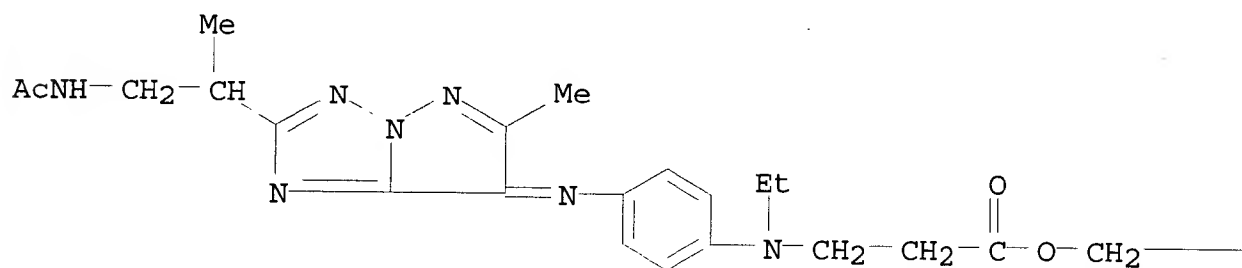
CN 1,4-Benzenediamine, N'-[6-(1,1-dimethylethyl)-2-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]-N-ethyl-N-(2-furanylmethyl) - (9CI) (CA INDEX NAME)



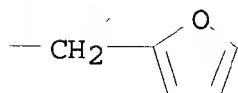
RN 165955-89-5 HCA

CN .beta.-Alanine, N-[4-[[2-[2-(acetylamino)-1-methylethyl]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]-N-ethyl-, 2-(2-furanyl)ethyl ester (9CI) (CA INDEX NAME)

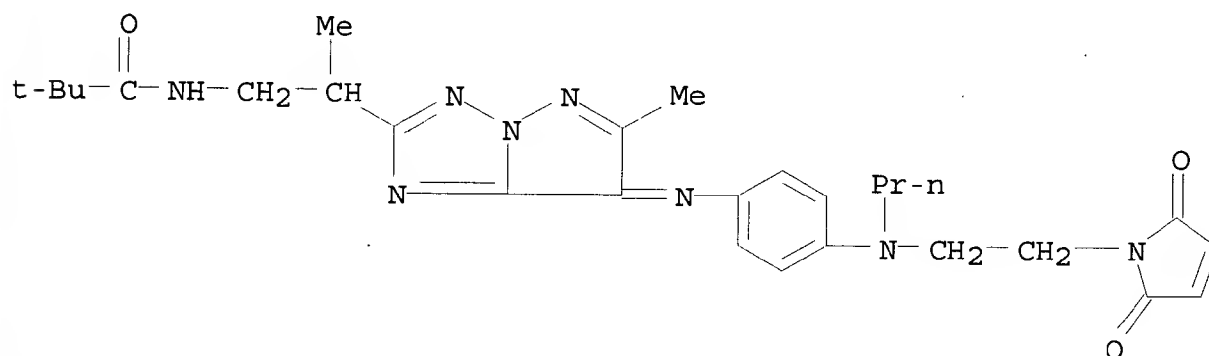
PAGE 1-A



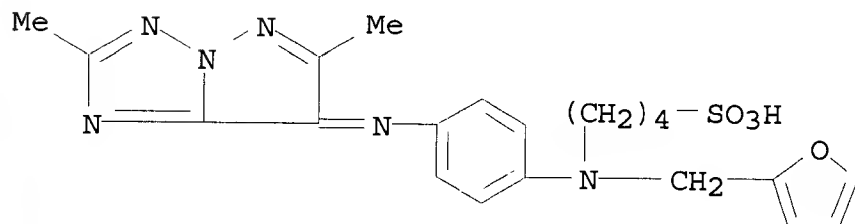
PAGE 1-B



RN 165955-93-1 HCA
 CN Propanamide, N-[2-[7-[[4-[[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl]propylamino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

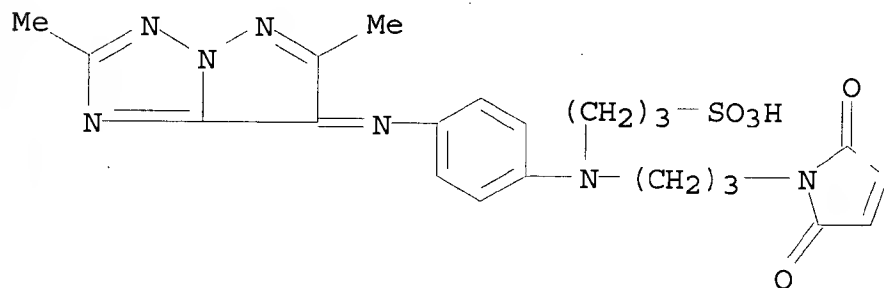


RN 165955-97-5 HCA
 CN 1-Butanesulfonic acid, 4-[[4-[(2,6-dimethyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene)amino]phenyl](2-furanylmethyl)amino]-, potassium salt (9CI) (CA INDEX NAME)



• K

RN 165956-01-4 HCA
 CN 1-Propanesulfonic acid, 3-[[3-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)propyl][4-[(2,6-dimethyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene)amino]phenyl]amino]- (9CI) (CA INDEX NAME)



IC ICM B41M005-00
 ICS C09D011-00
 CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 ST **ink jet printing** diene dienophile; dye
 Diels Alder reaction printing
 IT Diels-Alder reaction
 Dienophiles
 (**ink-jet printing** by Diels-Alder reaction between dienes and dienophiles of dyes and receptors)
 IT Alkadienes
 (**ink-jet printing** by Diels-Alder reaction between dienes and dienophiles of dyes and receptors)
 IT **Printing**, nonimpact
 (**ink-jet, ink-jet printing** by Diels-Alder reaction between dienes and dienophiles of dyes and receptors)
 IT 1206-49-1 26347-56-8 38167-72-5 84284-26-4 158658-28-7
 158658-31-2 158658-35-6 **158658-36-7** 158658-38-9
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 165955-97-5 165955-98-6 165955-99-7 165956-00-3
 165956-01-4 165956-02-5

(ink-jet printing by Diels-Alder
 reaction between dienes and dienophiles of dyes and receptors)

L11 ANSWER 28 OF 29 HCA COPYRIGHT 2002 ACS
 ACCESSION NUMBER: 118:104786 HCA
 TITLE: Lightfast pyrazoloazole azomethine dyes
 INVENTOR(S): Mikoshiba, Takashi; Tanaka, Mitsugi; Morigaki,
 Masakazu; Kubodera, Seiichi
 PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 34 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 04178646	A2	19920625	JP 1990-305974	19901114
JP 2964422	B2	19991018		

OTHER SOURCE(S): MARPAT 118:104786
 GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

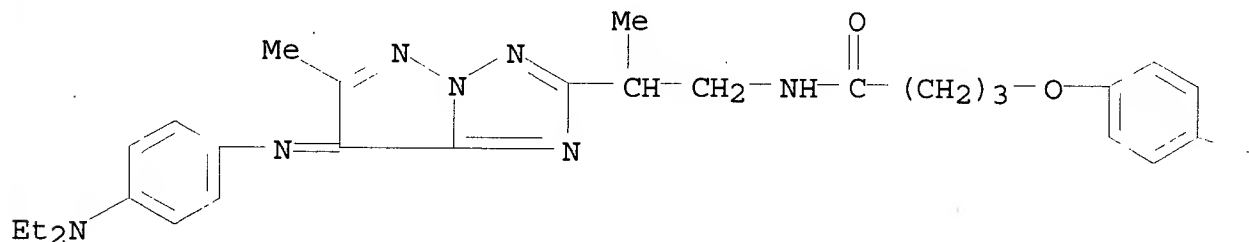
AB The dyes, useful for inks (jet-printing
 , thermal-transfer, etc.), have the general formula I (R1, R2 = H,
 alkyl, aryl, heterocyclyl; R3-R7 = H, nonmetallic substituent;
 specific pairs of Ri may combine to form fused rings; Za, Zb, Zc =
 CR8, N; R8 = H, nonmetallic substituent; .gtoreq.1 of R1-R8 contains
 a phenoxy or N heterocyclic group). II, .lambda.max 504 nm, was
 prepd. in 41.8% yield starting from III and p-
 H2NC6H4N(CH2CH2CN)CH2CH2OC6H4OMe-p tosylate.

IT 136640-10-3P 136640-11-4P 136640-13-6P
 136640-16-9P 136640-22-7P 136640-25-0P
 136640-28-3P 136662-91-4P 136662-92-5P
 137141-56-1P 139959-28-7P 139959-31-2P
 139959-34-5P 143695-94-7P 143696-25-7P
 145689-06-1P 145689-07-2P 145689-08-3P
 145689-09-4P 145689-10-7P 145689-11-8P
 145689-12-9P 145689-13-0P 145689-14-1P
 145689-15-2P 145689-16-3P 145689-17-4P
 145689-18-5P 145689-19-6P 146116-85-0P
 (dye, lightfast, for inks, manuf. of)

RN 136640-10-3 HCA

CN Butanamide, N-[2-[7-[[4-(diethylamino)phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-4-(4-methoxyphenoxy)-(9CI) (CA INDEX NAME)

PAGE 1-A



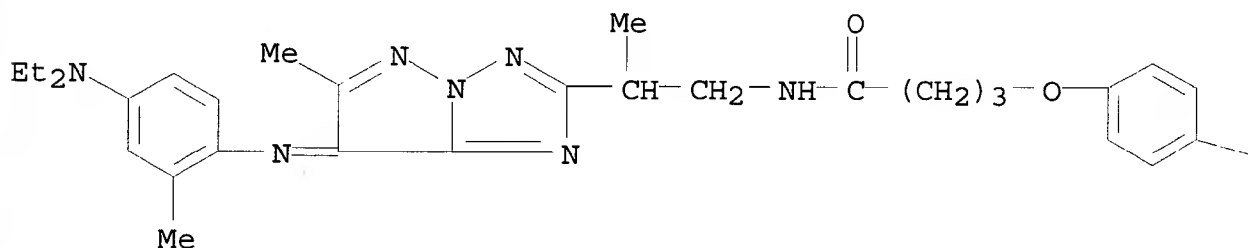
PAGE 1-B

— OMe

RN 136640-11-4 HCA

CN Butanamide, N-[2-[7-[[4-(diethylamino)-2-methylphenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-4-(4-methoxyphenoxy)-(9CI) (CA INDEX NAME)

PAGE 1-A

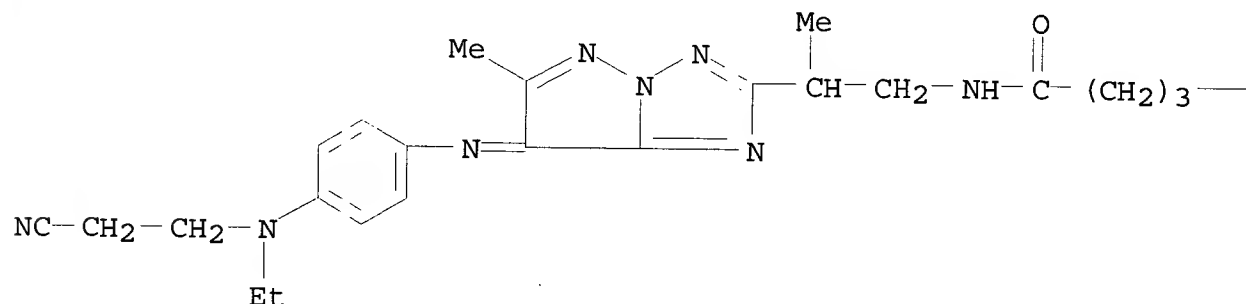


PAGE 1-B

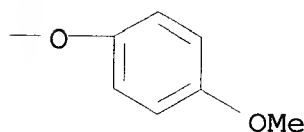
— OMe

RN 136640-13-6 HCA
 CN Butanamide, N-[2-[7-[[4-[(2-cyanoethyl)ethylamino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-4-(4-methoxyphenoxy) - (9CI) (CA INDEX NAME)

PAGE 1-A

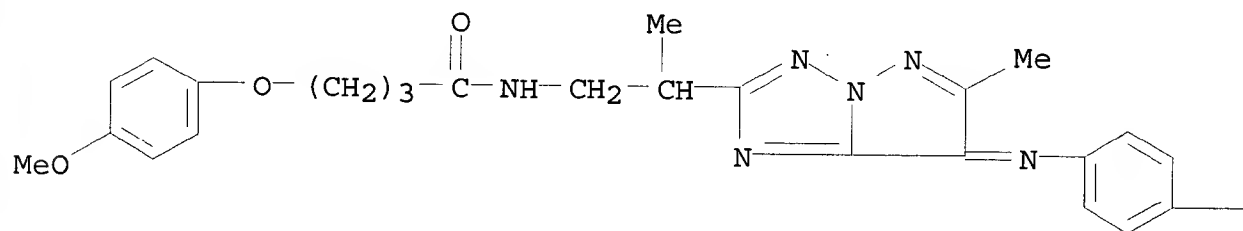


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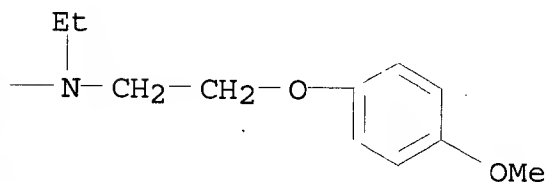


RN 136640-16-9 HCA
 CN Butanamide, N-[2-[7-[[4-[ethyl[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-4-(4-methoxyphenoxy) - (9CI) (CA INDEX NAME)

PAGE 1-A

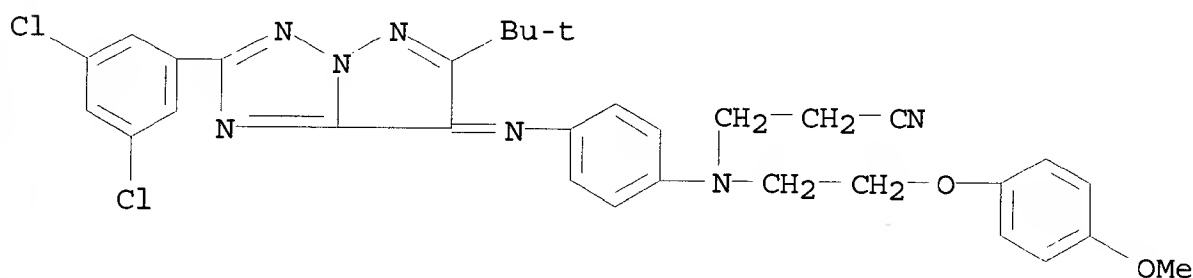


PAGE 1-B



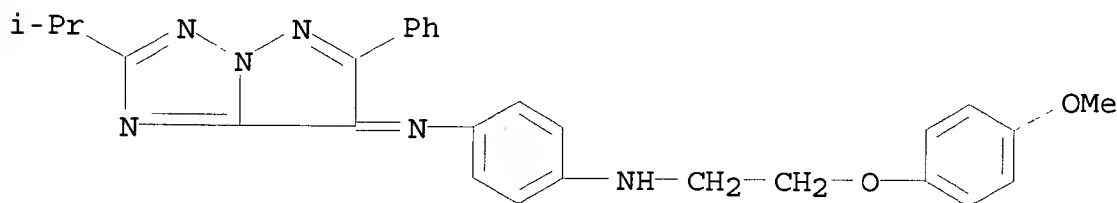
RN 136640-22-7 HCA

CN Propanenitrile, 3-[[4-[[2-(3,5-dichlorophenyl)-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl][2-(4-methoxyphenoxy)ethyl]amino]-(9CI) (CA INDEX NAME)



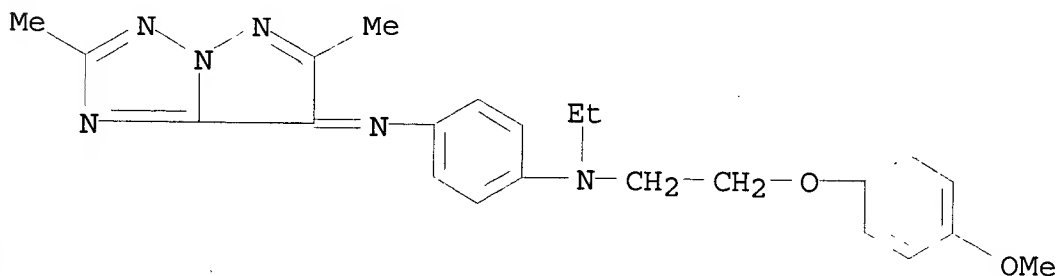
RN 136640-25-0 HCA

CN 1,4-Benzenediamine, N-[2-(4-methoxyphenoxy)ethyl]-N'-[2-(1-methylethyl)-6-phenyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]-(9CI) (CA INDEX NAME)



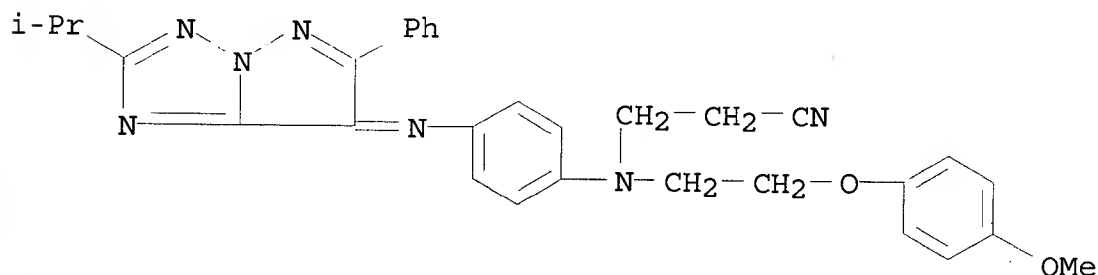
RN 136640-28-3 HCA

CN 1,4-Benzenediamine, N'-(2,6-dimethyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene)-N-ethyl-N-[2-(4-methoxyphenoxy)ethyl]-(9CI) (CA INDEX NAME)



RN 136662-91-4 HCA

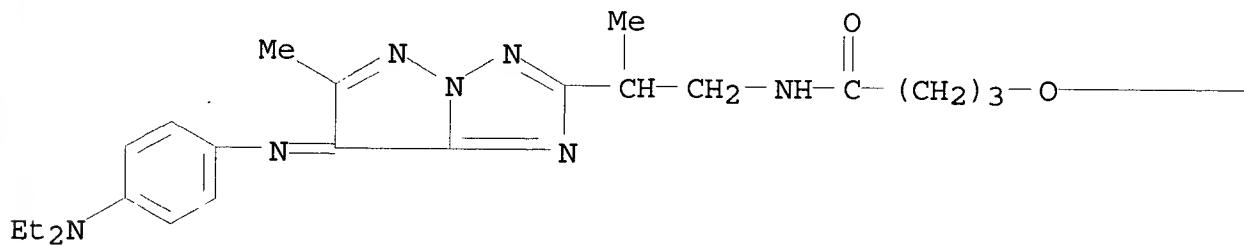
CN Propanenitrile, 3-[[2-(4-methoxyphenoxy)ethyl][4-[[2-(1-methylethyl)-6-phenyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]amino]- (9CI) (CA INDEX NAME)



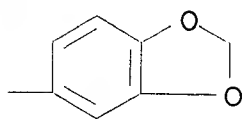
RN 136662-92-5 HCA

CN Butanamide, 4-(1,3-benzodioxol-5-yloxy)-N-[2-{7-[[4-(diethylamino)phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

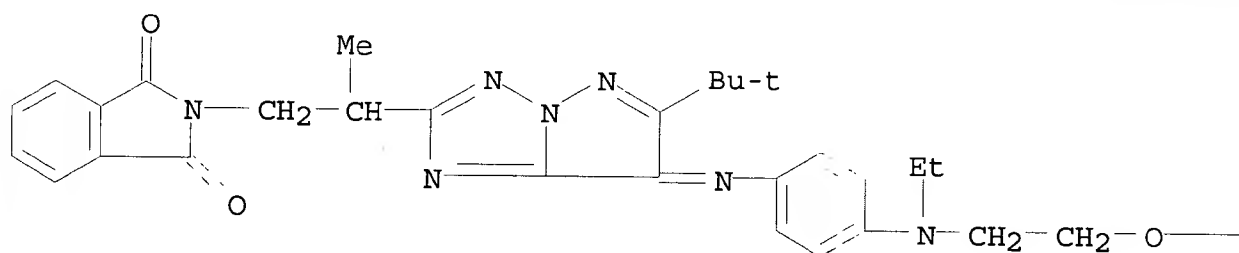


PAGE 1-B

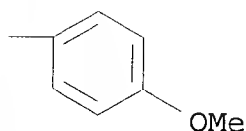


RN 137141-56-1 HCA
 CN 1H-Isoindole-1,3(2H)-dione, 2-[2-[6-(1,1-dimethylethyl)-7-[[4-ethyl[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

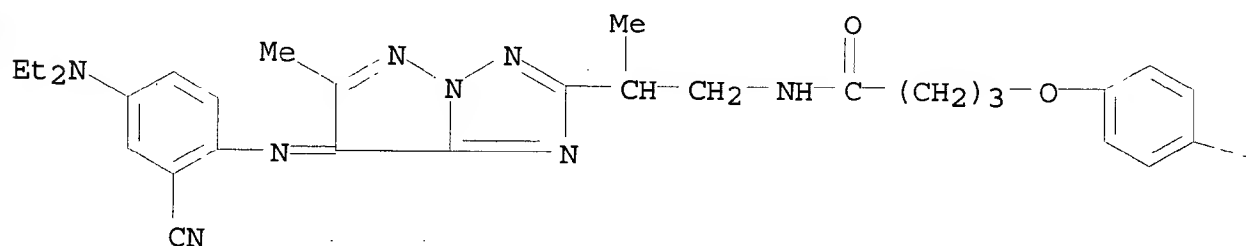


PAGE 1-B



RN 139959-28-7 HCA
 CN Butanamide, N-[2-[7-[[2-cyano-4-(diethylamino)phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-4-(4-methoxyphenoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A

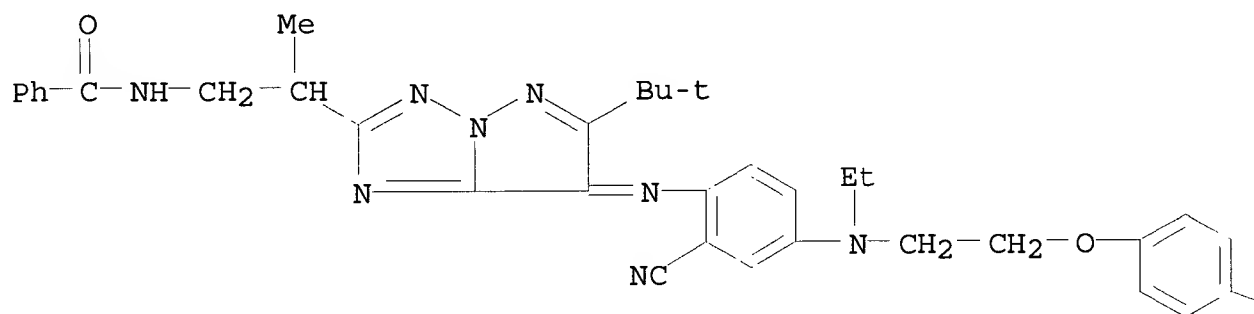


PAGE 1-B

—OMe

RN 139959-31-2 HCA
 CN Benzanide, N-[2-[7-[[2-cyano-4-[ethyl[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-(9CI) (CA INDEX NAME)

PAGE 1-A

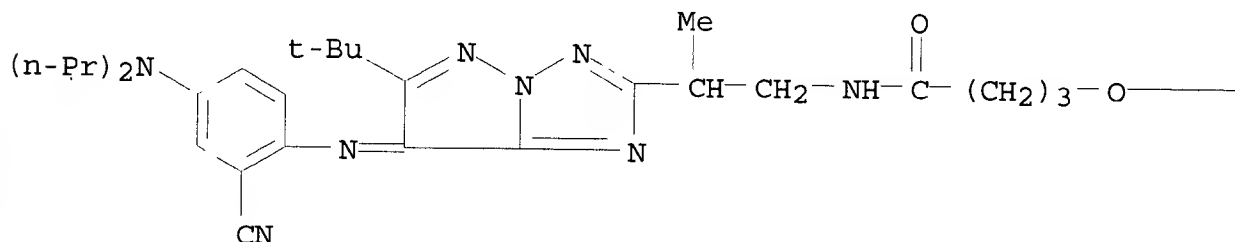


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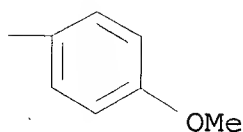
—OMe

RN 139959-34-5 HCA
 CN Butanamide, N-[2-[7-[[2-cyano-4-(dipropylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-4-(4-methoxyphenoxy)-(9CI) (CA INDEX NAME)

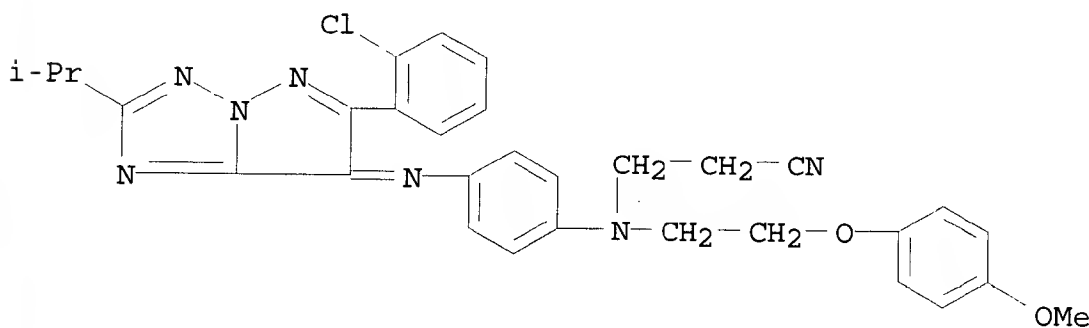
PAGE 1-A



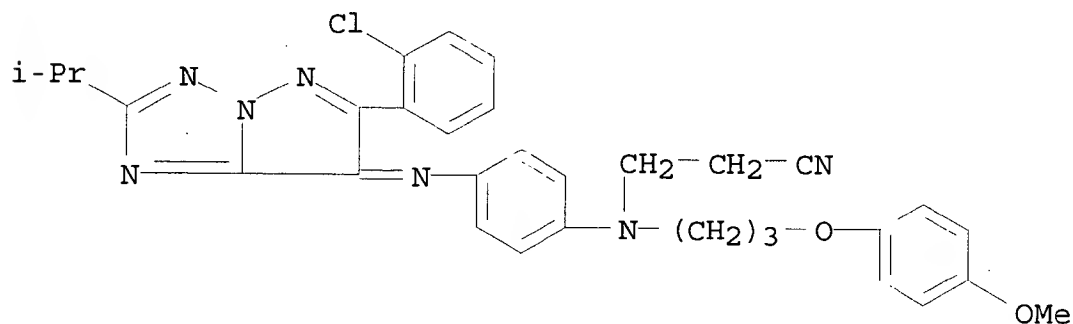
PAGE 1-B



RN 143695-94-7 HCA
 CN Propanenitrile, 3-[[4-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl][2-(4-methoxyphenoxy)ethyl]amino]- (9CI) (CA INDEX NAME)

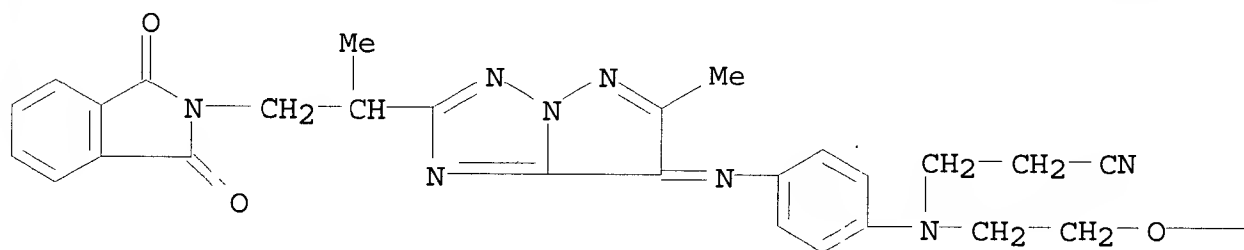


RN 143696-25-7 HCA
 CN Propanenitrile, 3-[[4-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl][3-(4-methoxyphenoxy)propyl]amino]- (9CI) (CA INDEX NAME)

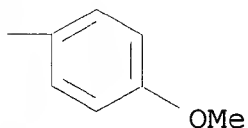


RN 145689-06-1 HCA
 CN Propanenitrile, 3-[[4-[[2-[2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-1-methylethyl]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl][2-(4-methoxyphenoxy)ethyl]amino] - (9CI) (CA INDEX NAME)

PAGE 1-A

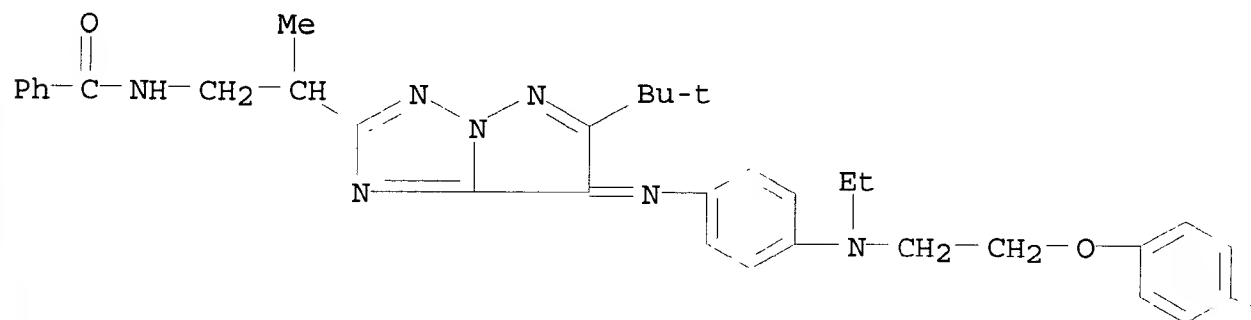


PAGE 1-B



RN 145689-07-2 HCA
 CN Benzamide, N-[2-[6-(1,1-dimethylethyl)-7-[[4-[ethyl[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl] - (9CI) (CA INDEX NAME)

PAGE 1-A

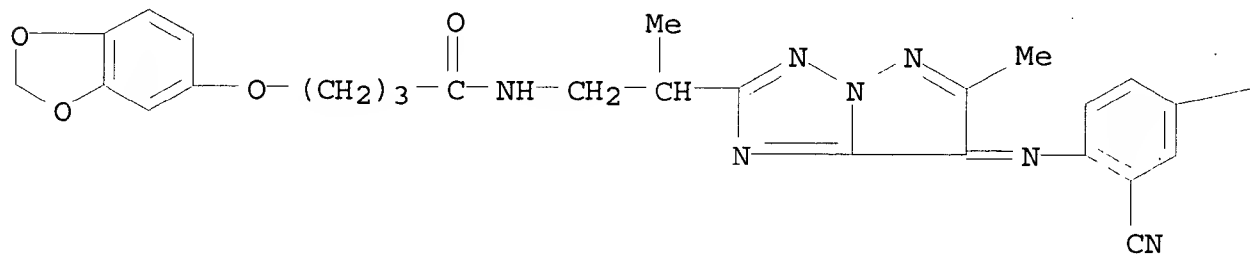


PAGE 1-B

OMe

RN 145689-08-3 HCA
 CN Butanamide, 4-(1,3-benzodioxol-5-yloxy)-N-[2-[7-[[2-cyano-4-(diethylamino)phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

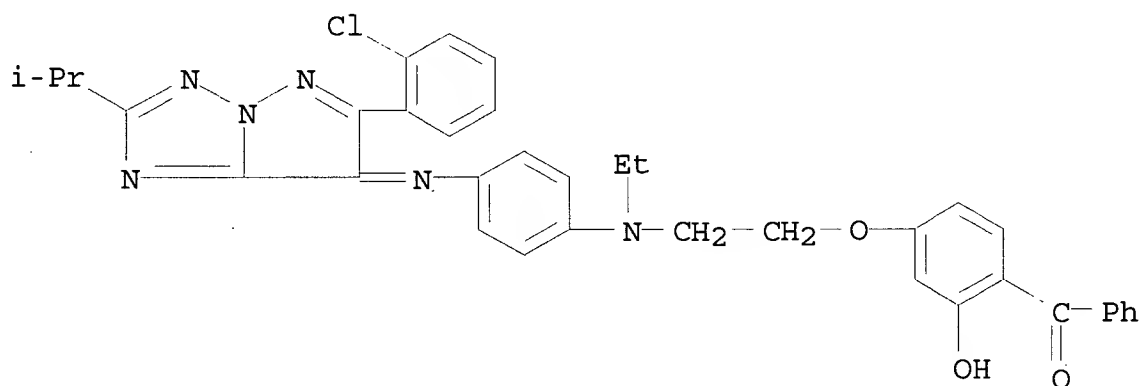


PAGE 1-B

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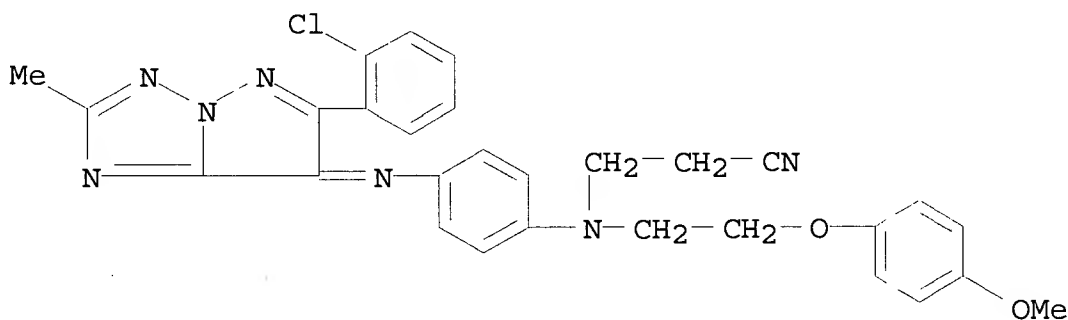
RN 145689-09-4 HCA

CN Methanone, [4-[2-[[4-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]ethylamino]ethoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)



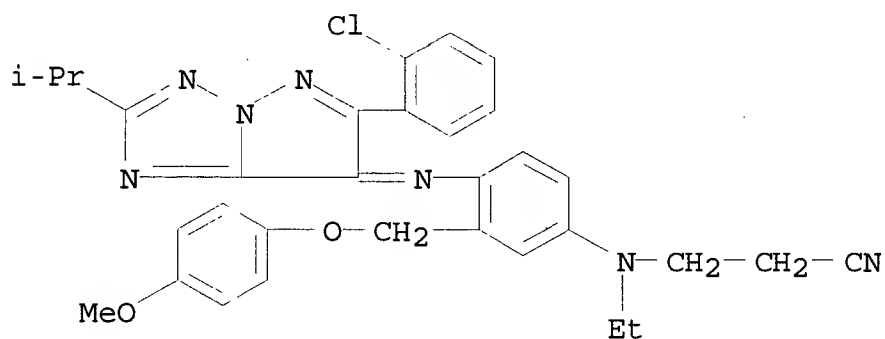
RN 145689-10-7 HCA

CN Propanenitrile, 3-[[4-[[6-(2-chlorophenyl)-2-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl][2-(4-methoxyphenoxy)ethyl]amino]- (9CI) (CA INDEX NAME)



RN 145689-11-8 HCA

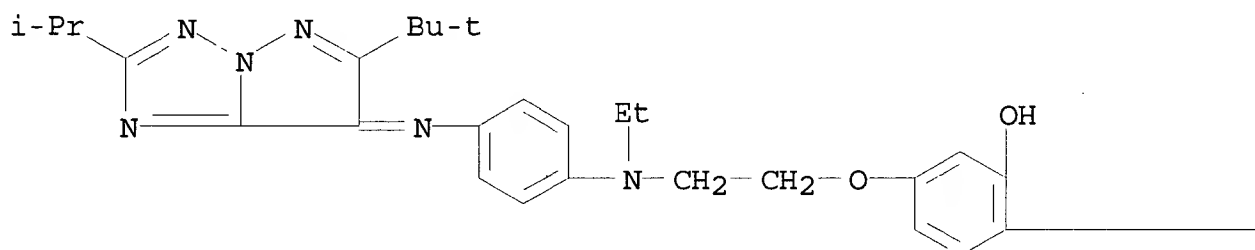
CN Propanenitrile, 3-[[4-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-[(4-methoxyphenoxy)methyl]phenyl]ethylamino]- (9CI) (CA INDEX NAME)



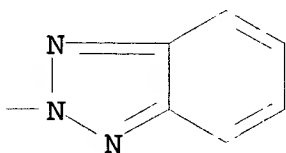
RN 145689-12-9 HCA

CN Phenol, 2-(2H-benzotriazol-2-yl)-5-[2-[[4-[[6-(1,1-dimethylethyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]ethylamino]ethoxy]-(9CI) (CA INDEX NAME)

PAGE 1-A

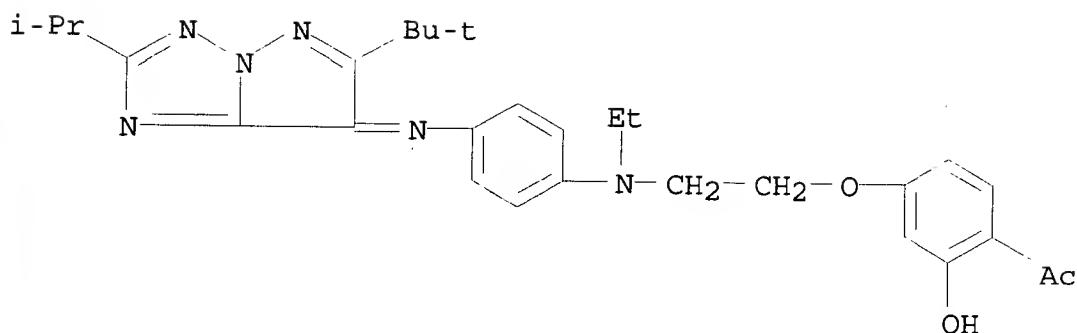


PAGE 1-B



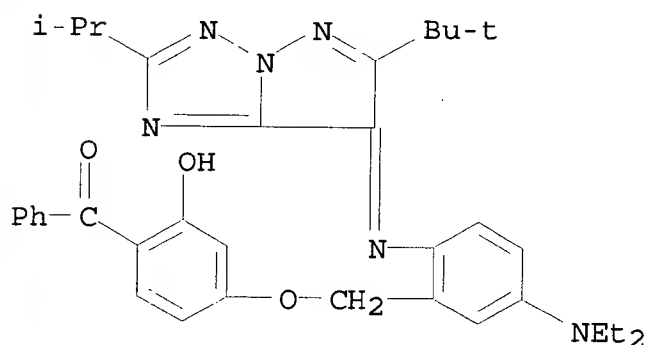
RN 145689-13-0 HCA

CN Ethanone, 1-[4-[2-[[4-[[6-(1,1-dimethylethyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]ethylamino]ethoxy]-2-hydroxyphenyl]-(9CI) (CA INDEX NAME)



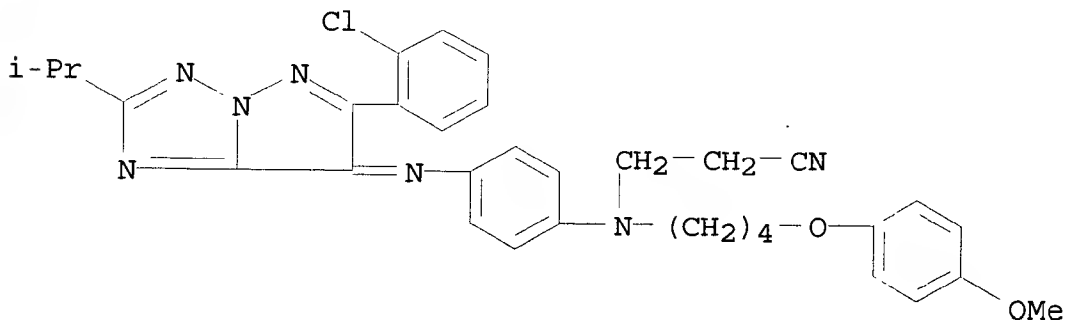
RN 145689-14-1 HCA

CN Methanone, [4-[[5-(diethylamino)-2-[[6-(1,1-dimethylethyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]methoxy]-2-hydroxyphenyl]phenyl- (9CI) (CA INDEX NAME)



RN 145689-15-2 HCA

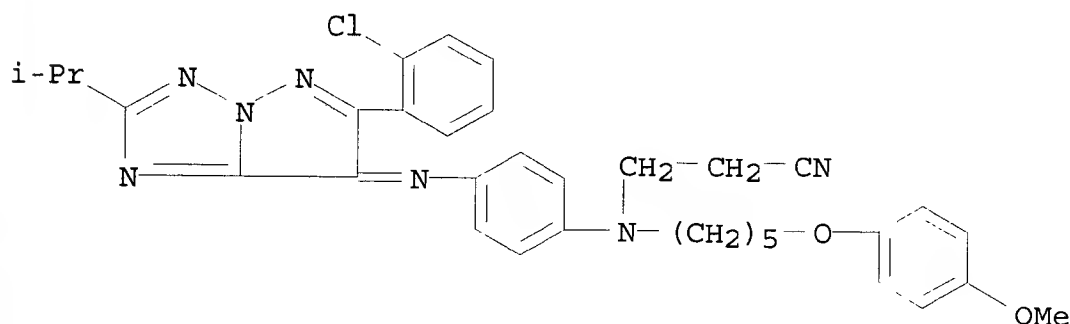
CN Propanenitrile, 3-[[4-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl][4-(4-methoxyphenoxy)butyl]amino]- (9CI) (CA INDEX NAME)



RN 145689-16-3 HCA

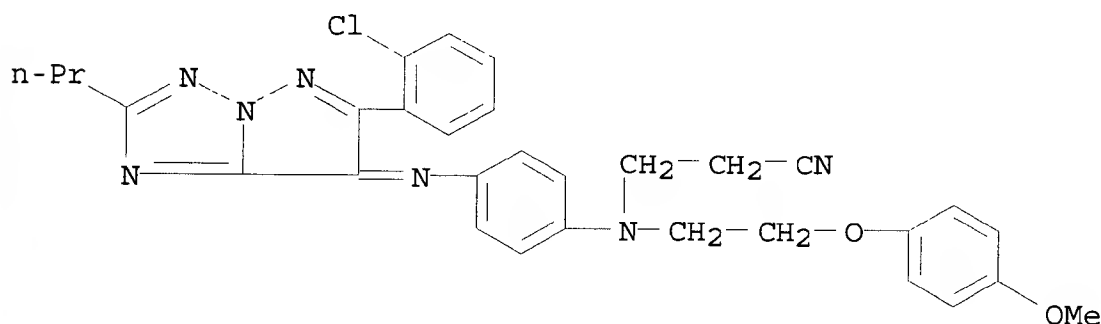
CN Propanenitrile, 3-[[4-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl][5-(4-

methoxyphenoxy)pentyl]amino] - (9CI) (CA INDEX NAME)



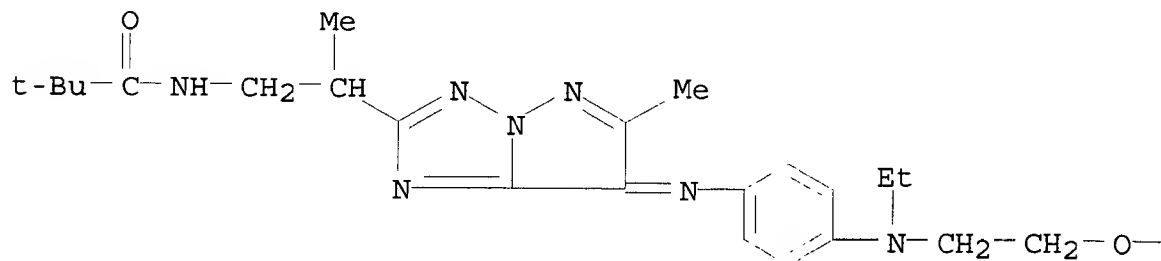
RN 145689-17-4 HCA

CN Propanenitrile, 3-[[4-[[6-(2-chlorophenyl)-2-propyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl][2-(4-methoxyphenoxy)ethyl]amino] - (9CI) (CA INDEX NAME)



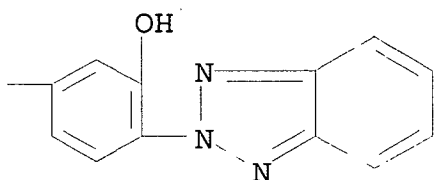
RN 145689-18-5 HCA

CN Propanamide, N-[2-[7-[[4-[[2-[4-(2H-benzotriazol-2-yl)-3-hydroxyphenoxy]ethyl]ethylamino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)



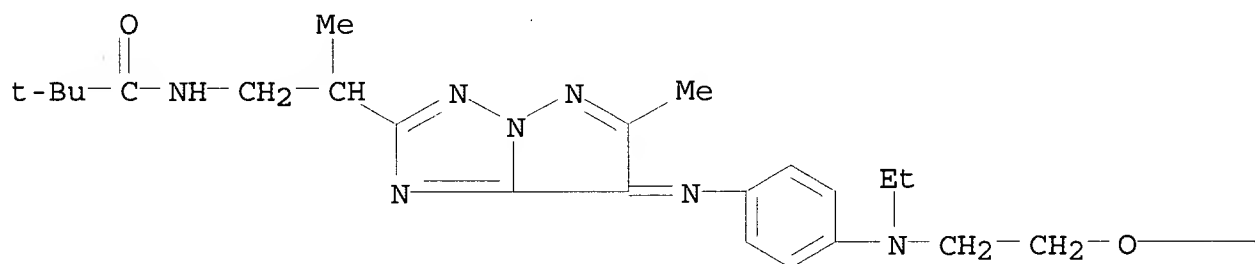
PAGE 1-A

PAGE 1-B

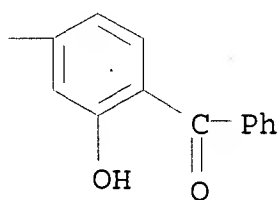


RN 145689-19-6 HCA
 CN Propanamide, N-[2-[7-[[4-[[2-(4-benzoyl-3-hydroxyphenoxy)ethyl]ethylamino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-2,2-dimethyl- (9CI) (CA INDEX NAME)

PAGE 1-A

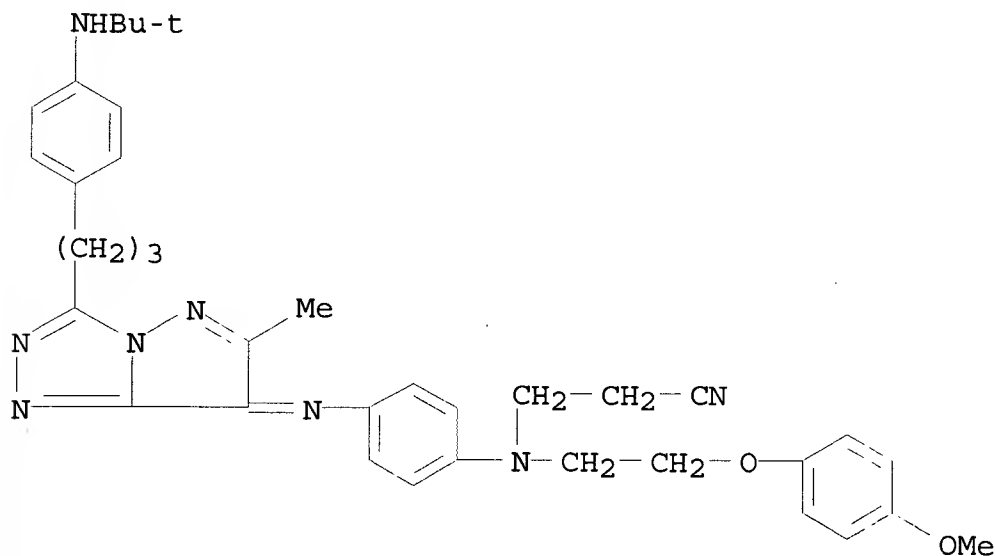


PAGE 1-B



RN 146116-85-0 HCA

CN Propanenitrile, 3-[[4-[[3-[3-[4-[(1,1-dimethylethyl)amino]phenyl]propyl]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]phenyl][2-(4-methoxyphenoxy)ethyl]amino] - (9CI) (CA INDEX NAME)



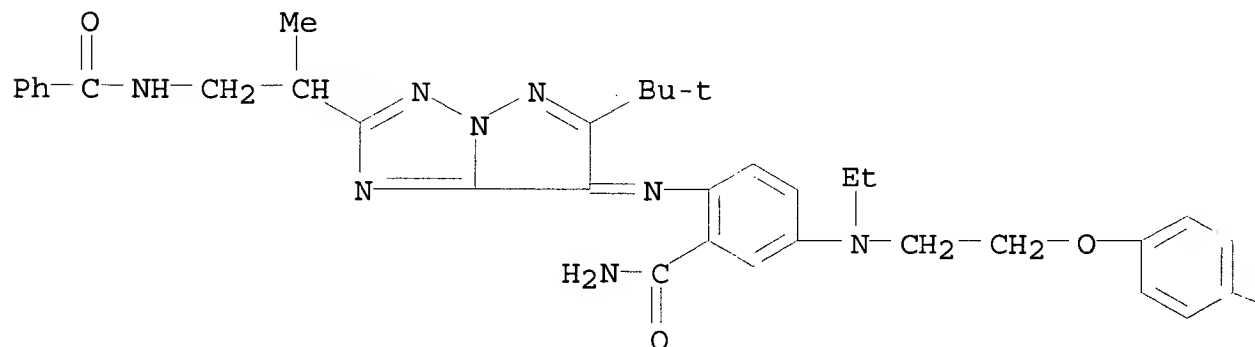
IT 145689-22-1P 145689-26-5P 145689-28-7P
145689-29-8P

(prepn. and dehydration of)

RN 145689-22-1 HCA

CN Benzamide, 2-[[2-[2-(benzoylamino)-1-methylethyl]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-5-[ethyl 2-(4-methoxyphenoxy)ethyl]amino] - (9CI) (CA INDEX NAME)

PAGE 1-A

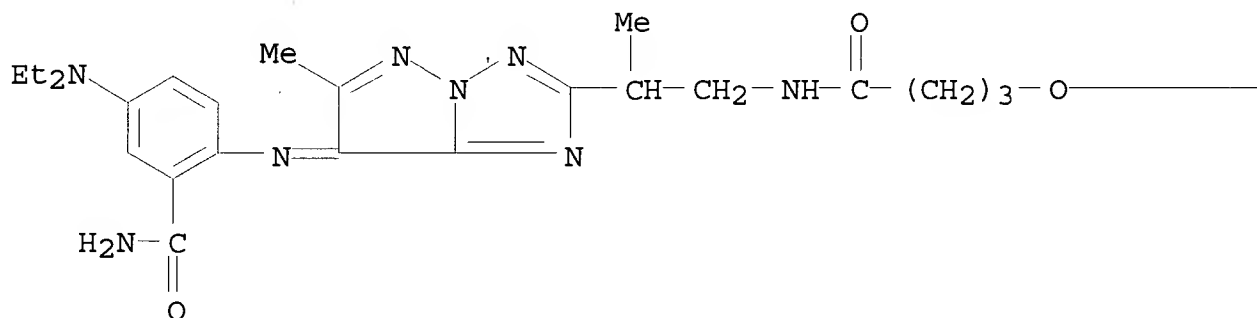


PAGE 1-B

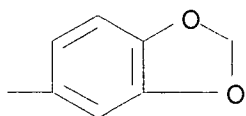
OMe

RN 145689-26-5 HCA
 CN Benzamide, 2-[[2-[2-[[4-(1,3-benzodioxol-5-yloxy)-1-oxobutyl]amino]-1-methylethyl]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-5-(diethylamino)- (9CI) (CA INDEX NAME)

PAGE 1-A

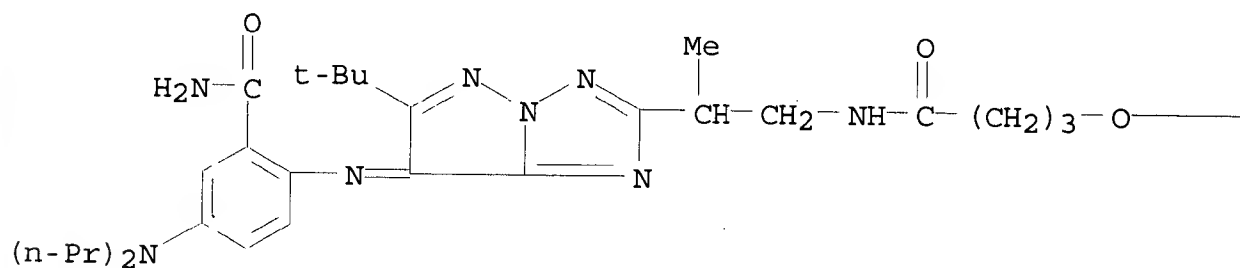


PAGE 1-B

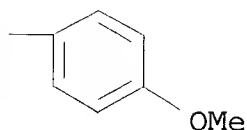


RN 145689-28-7 HCA
 CN Benzamide, 2-[[6-(1,1-dimethylethyl)-2-[2-[[4-(4-methoxyphenoxy)-1-oxobutyl]amino]-1-methylethyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-5-(dipropylamino)- (9CI) (CA INDEX NAME)

PAGE 1-A

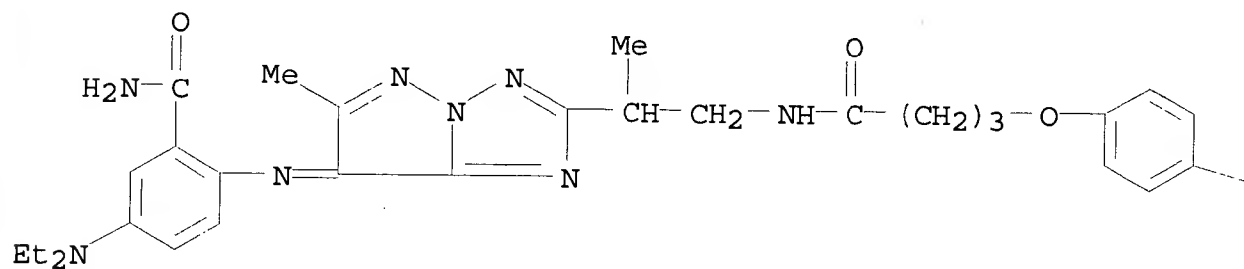


PAGE 1-B

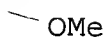


RN 145689-29-8 HCA
 CN Benzamide, 5-(diethylamino)-2-[[2-[2-[[4-(4-methoxyphenoxy)-1-oxobutyl]amino]-1-methylethyl]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03C007-38
 ICS C07D487-04; C09B055-00
 CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and
 Photographic Sensitizers)
 Section cross-reference(s): 42
 IT **Inks**
 (jet-printing, lightfast pyrazolotriazole
 azomethine dyes for)
 IT 136640-10-3P 136640-11-4P 136640-13-6P
 136640-16-9P 136640-22-7P 136640-25-0P
 136640-28-3P 136662-91-4P 136662-92-5P
 137141-56-1P 139959-28-7P 139959-31-2P
 139959-34-5P 143695-94-7P 143696-25-7P
 145689-06-1P 145689-07-2P 145689-08-3P
 145689-09-4P 145689-10-7P 145689-11-8P
 145689-12-9P 145689-13-0P 145689-14-1P
 145689-15-2P 145689-16-3P 145689-17-4P
 145689-18-5P 145689-19-6P 146116-85-0P
 (dye, lightfast, for inks, manuf. of)
 IT 145689-22-1P 145689-26-5P 145689-28-7P
 145689-29-8P
 (prepn. and dehydration of)

L11 ANSWER 29 OF 29 HCA COPYRIGHT 2002 ACS

ACCESSION NUMBER: 116:61766 HCA
 TITLE: **Jet-printing inks**

containing condensed pyrazole derivatives as
 magenta coloring agents

INVENTOR(S): Tanaka, Mitsugi; Mikoshiba, Takashi

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.

CODEN: JKXXAF

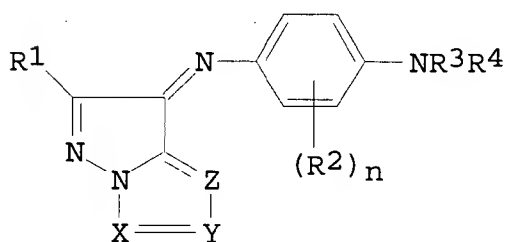
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 03231975	A2	19911015	JP 1990-26406	19900206
OTHER SOURCE(S):	MARPAT 116:61766			
GI				



I

AB Coloring agents are I, where R1, R2 = H, halogen, alkyl, cycloalkyl, alkoxy, aryl, aryloxy, or alkyl, cyano, acylamino, sulfonylamino, ureido, alkylthio, arylthio, alkoxycarbonyl, carbamoyl, sulfamoyl, sulfonyl, acyl, amino groups, R3, R4 = H, alkyl, cycloalkyl, or alkyl, aryl, R3 and R4, R2 and R3, or R2 and R4 optionally form rings, n = 0-3 integer, X, Y, and Z = CR5 or N, R5 = H, alkyl, cycloalkyl, or alkyl, aryl, alkoxy, aryloxy, amino, heterocyclic, when X, Y = CR5 or Y, Z = CR5, optionally form satd. or unsatd. carbon rings. Thus, an ink contained I (R1 = tert-Bu, R2 = H, R3 = C2H4CN, R4 = Et, X, Z = N, Y = CMe) 6, di-Et phthalate 30, diisopropyl adipate 44, and N,N-diethyldodecanamide 20 parts.

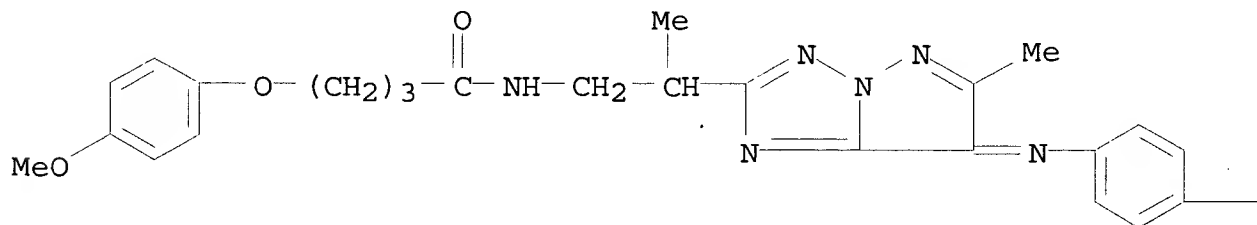
IT 136640-16-9 138686-44-9 138686-45-0
 138686-46-1 138686-47-2 138686-48-3
 138686-49-4 138805-91-1 138805-92-2
 138805-93-3 138805-94-4

(dyes, for jet-printing inks)

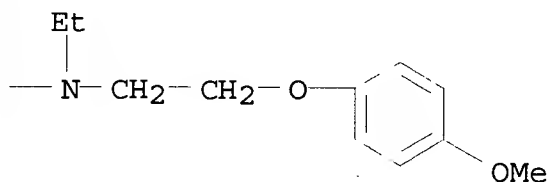
RN 136640-16-9 HCA

CN Butanamide, N-[2-[7-[[4-[ethyl[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-4-(4-methoxyphenoxy) - (9CI) (CA INDEX NAME)

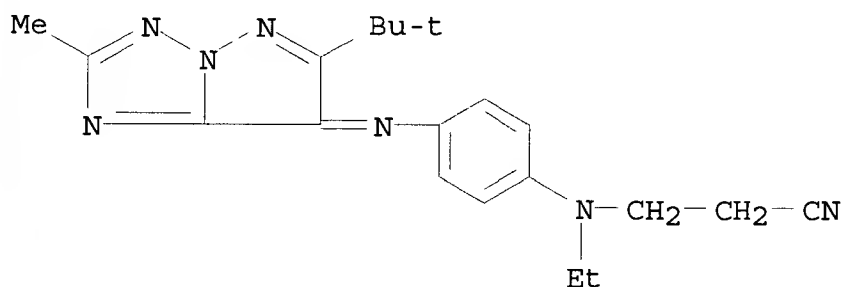
PAGE 1-A



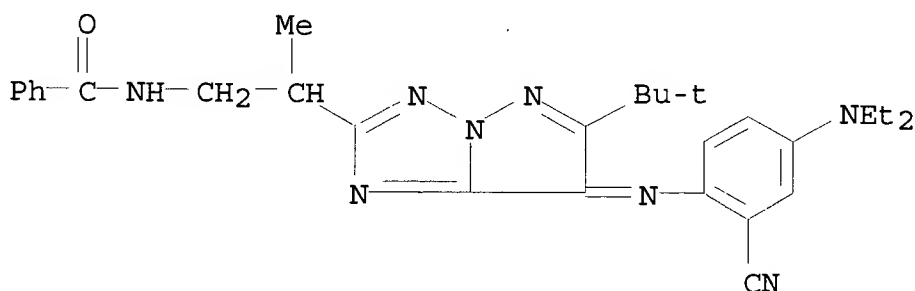
PAGE 1-B



RN 138686-44-9 HCA
 CN Propanenitrile, 3-[[4-[[6-(1,1-dimethylethyl)-2-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]ethylamino]-(9CI) (CA INDEX NAME)

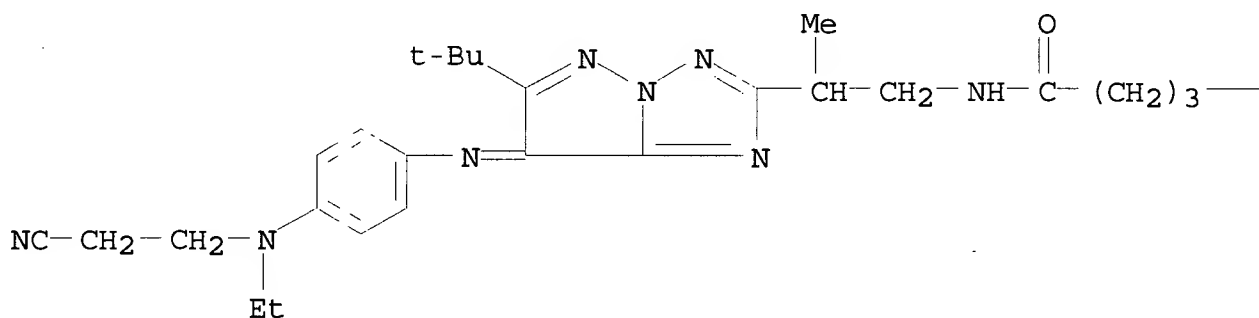


RN 138686-45-0 HCA
 CN Benzamide, N-[2-[7-[[2-cyano-4-(diethylamino)phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-(9CI) (CA INDEX NAME)

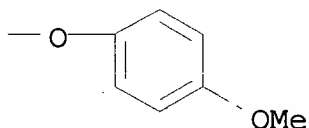


RN 138686-46-1 HCA
 CN Butanamide, N-[2-[7-[[4-[(2-cyanoethyl)ethylamino]phenyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-4-(4-methoxyphenoxy)-(9CI) (CA INDEX NAME)

PAGE 1-A

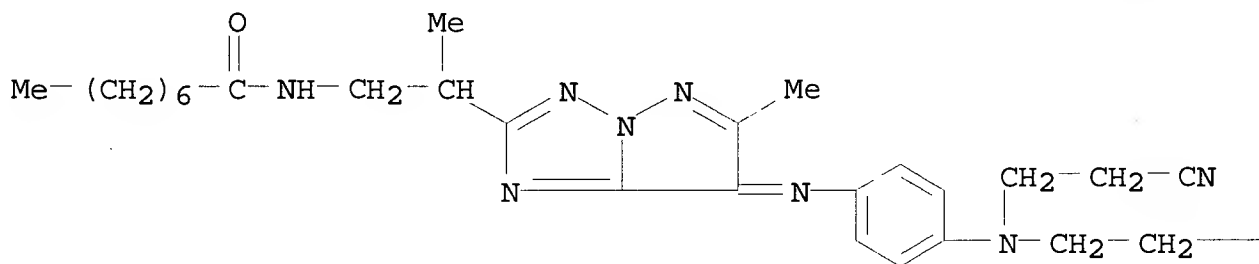


PAGE 1-B

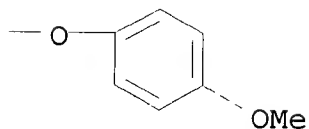


RN 138686-47-2 HCA
 CN Octanamide, N-[2-[7-[[4-[(2-cyanoethyl)[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]-(9CI) (CA INDEX NAME)

PAGE 1-A

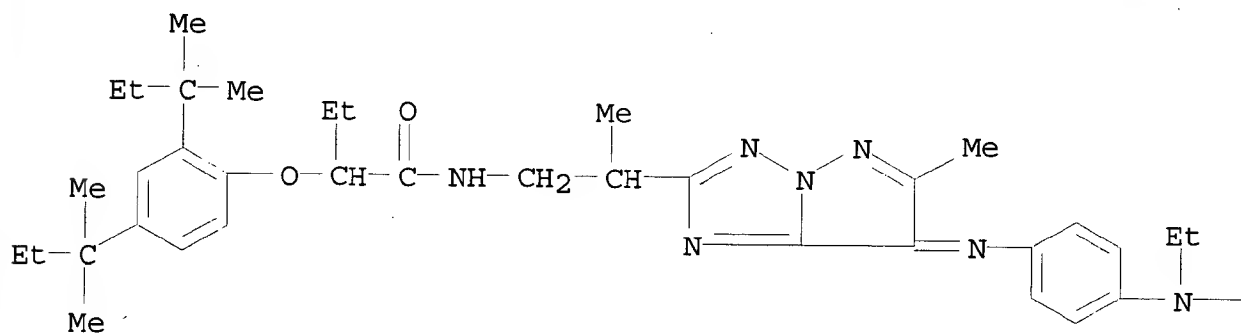


PAGE 1-B

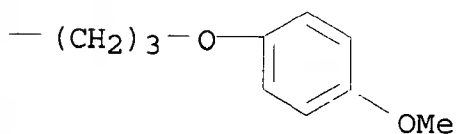


RN 138686-48-3 HCA
 CN Butanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[2-[7-[[4-ethyl[3-(4-methoxyphenoxy)propyl]amino]phenyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]propyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

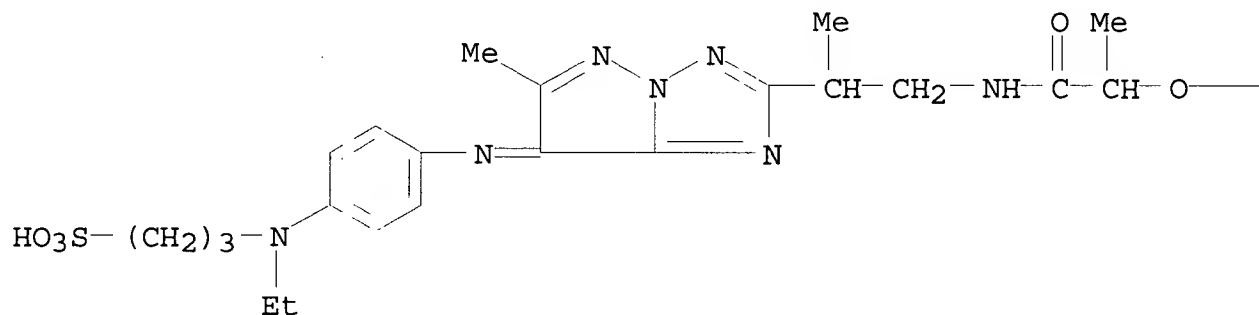


PAGE 1-B

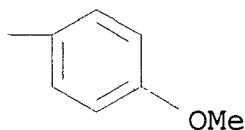


RN 138686-49-4 HCA
 CN 1-Propanesulfonic acid, 3-[ethyl[4-[[2-[2-[[2-(4-methoxyphenoxy)-1-oxopropyl]amino]-1-methylethyl]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]phenyl]amino]- (9CI) (CA INDEX NAME)

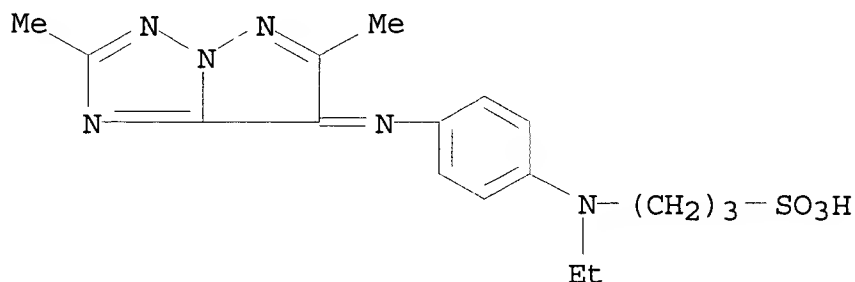
PAGE 1-A



PAGE 1-B



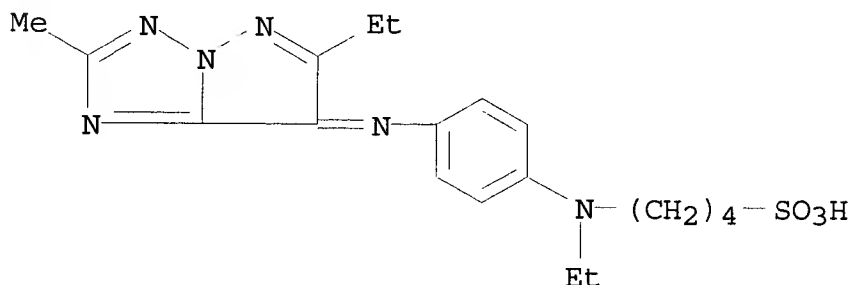
RN 138805-91-1 HCA
 CN 1-Propanesulfonic acid, 3-[[4-[(2,6-dimethyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene)amino]phenyl]ethylamino]-, sodium salt (9CI) (CA INDEX NAME)



• Na

RN 138805-92-2 HCA
 CN 1-Butanesulfonic acid, 4-[ethyl[4-[(6-ethyl-2-methyl-7H-pyrazolo[1,5-

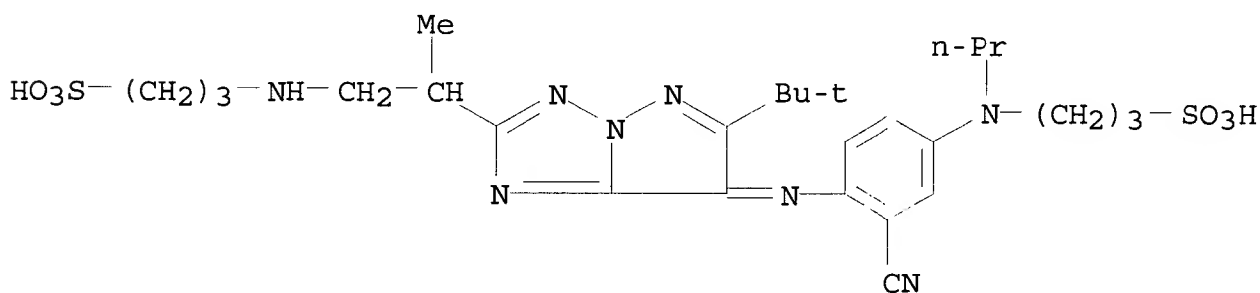
b) [1,2,4]triazol-7-ylidene) amino] phenyl] amino] -, potassium salt
(9CI) (CA INDEX NAME)



• K

RN 138805-93-3 HCA

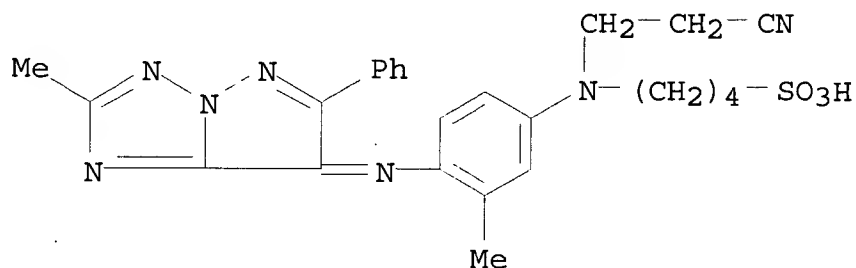
CN 1-Propanesulfonic acid, 3-[[3-cyano-4-[[6-(1,1-dimethylethyl)-2-[1-methyl-2-[(3-sulfopropyl) amino] ethyl]-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene] amino] phenyl] propylamino] -, disodium salt
(9CI) (CA INDEX NAME)



• 2 Na

RN 138805-94-4 HCA

CN 1-Butanesulfonic acid, 4-[(2-cyanoethyl) [3-methyl-4-[(2-methyl-6-phenyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene) amino] phenyl] amino] -, potassium salt (9CI) (CA INDEX NAME)



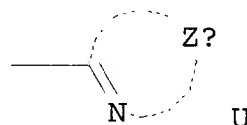
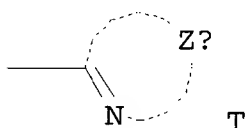
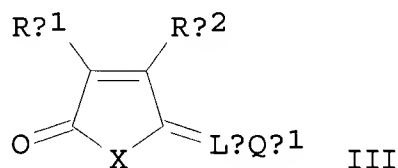
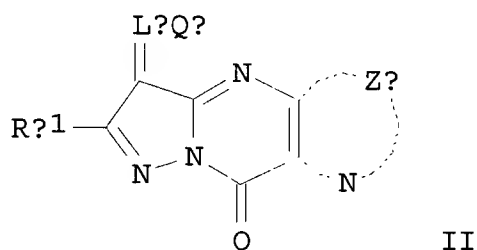
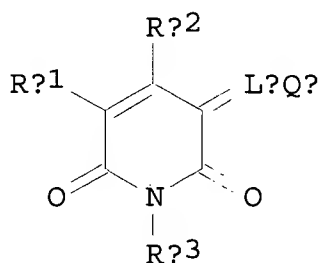
• K

IC ICM C09D011-00
ICS B41M005-00; C09D011-02
CC 42-12 (Coatings, Inks, and Related Products)
Section cross-reference(s): 41, 74
ST dipyrazole **jet printing ink**; condensed
pyrazole dye ink
IT Dyes
(magenta, condensed pyrazole derivs., for **jet-**
printing inks)
IT **Inks**
(**jet-printing**, magenta dyes for, condensed
pyrazole derivs. as)
IT 136640-16-9 138686-44-9 138686-45-0
138686-46-1 138686-47-2 138686-48-3
138686-49-4 138805-91-1 138805-92-2
138805-93-3 138805-94-4
(dyes, for **jet-printing inks**)
IT 89929-65-7 109823-00-9 123633-02-3
(**jet-printing inks** contg. dyes of
condensed pyrazole derivs. and)

=> d l13 1-11 cbib abs hitstr hitrn

L13 ANSWER 1 OF 11 HCA COPYRIGHT 2002 ACS
136:29188 Material and method for thermal-transfer recording, color
filter, color toner, and ink containing azacyclic metal chelate dye.
Sugino, Motoaki; Fukuda, Mitsuhiro; Honda, Mari; Miura, Norio
(Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 2001334756 A2
20011204, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP
2000-160130 20000530.

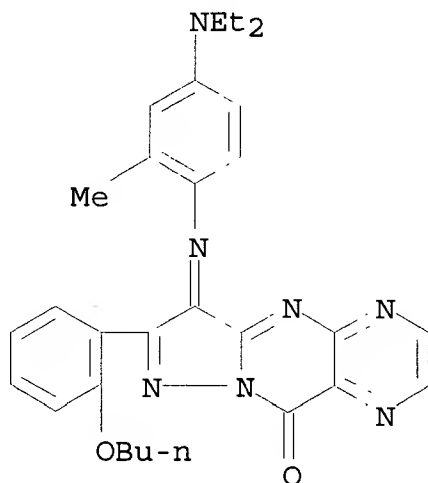
GI



AB The thermal-transfer recording material contains an azacyclic dye I, II, or III [RA1, RA2, RB1, RC1, RC2, RC3 = H, substituent; .gtoreq.1 of RA1 and RA2 = T; , .gtoreq.1 of RC1, RC2, and RC3 = U; RA3 = substituent; LA, LB, LC = CH:, N:; QA, QB, QC1 = nonmetallic at. group to form visible- or IR-absorbing dye; ZA, ZB, ZC = nonmetallic at. group to form 5- or 6-membered N-contg. heterocycle; X = O, S, NRC3;]. The thermal-transfer recording is carried out by laminating a I-, II-, or III-contg. dye-donating layer, which is applied on a support, on a dye receptor layer, which may contain metal ion-contg. compds. and is applied on another support, followed by imagewise heating the laminate to form an image preferably by reaction of the ion-contg. compd. with I, II, or III. The **ink-jet printing ink**, color toner, and color filter contain a metal-chelate dye formed by reaction of I, II, or III with metal ion-contg. compds. The chelate dye gives high-d., transparent, and light-resistant colors with good color reprodn.

IT **377748-27-1P**
(thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using azacyclic metal chelate dye)

RN 377748-27-1 HCA
CN Pyrazolo[5,1-b]pteridin-10(6H)-one, 7-(2-butoxyphenyl)-6-[[4-(diethylamino)-2-methylphenyl]imino]- (9CI) (CA INDEX NAME)

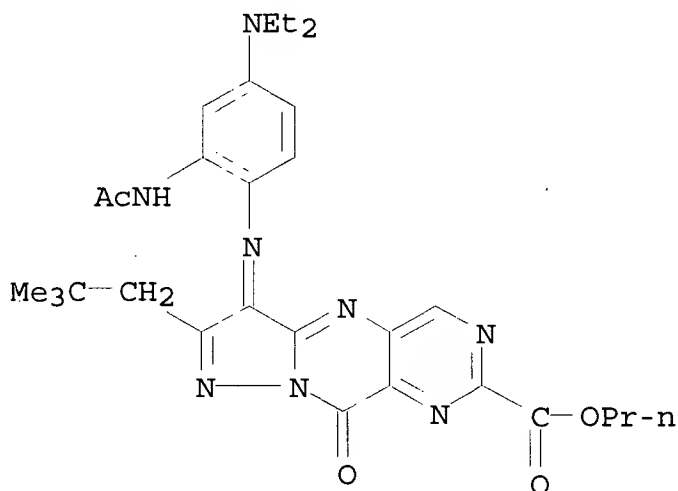


IT 377748-28-2 377748-29-3 377748-30-6
377748-31-7

(thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter
using azacyclic metal chelate dye)

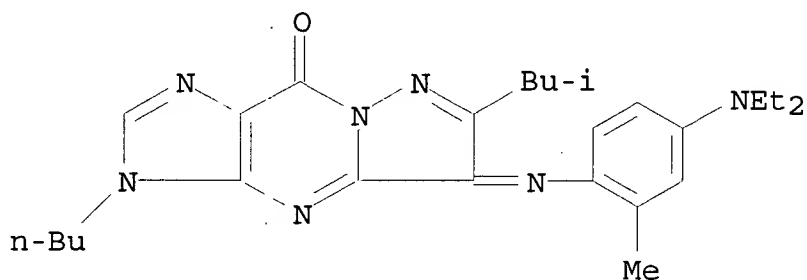
RN 377748-28-2 HCA

CN Pyrazolo[1,5-a]pyrimido[5,4-d]pyrimidine-2-carboxylic acid,
6-[[2-(acetamino)-4-(diethylamino)phenyl]imino]-7-(2,2-
dimethylpropyl)-6,10-dihydro-10-oxo-, propyl ester (9CI) (CA INDEX
NAME)

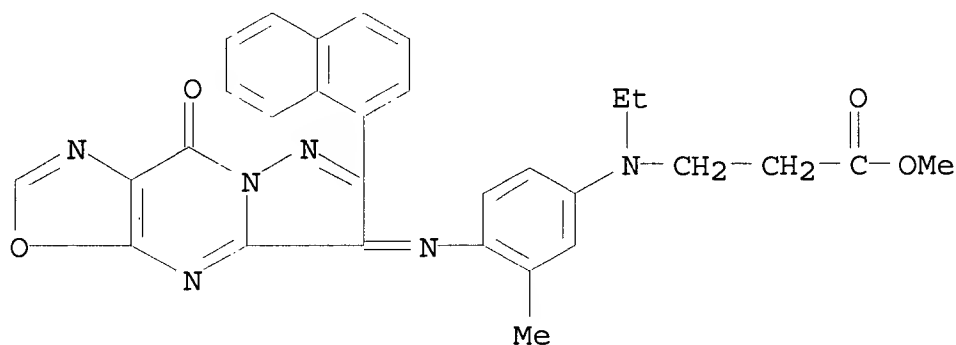


RN 377748-29-3 HCA

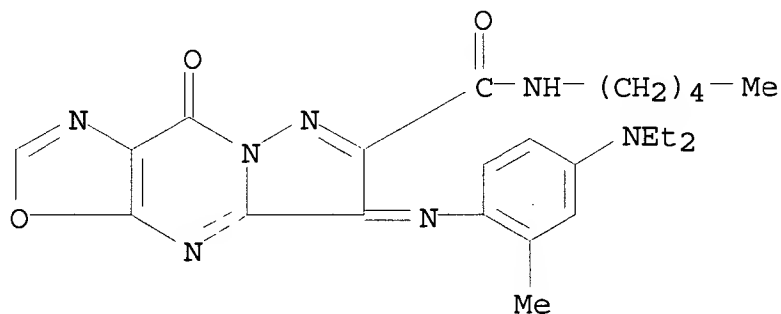
CN 9H-Pyrazolo[1,5-a]purin-9-one, 3-butyl-5-[[4-(diethylamino)-2-
methylphenyl]imino]-3,5-dihydro-6-(2-methylpropyl)- (9CI) (CA I
NAME)



RN 377748-30-6 HCA
 CN .beta.-Alanine, N-ethyl-N-[3-methyl-4-[[6-(1-naphthalenyl)-9-oxooxazolo[5,4-d]pyrazolo[1,5-a]pyrimidin-5(9H)-ylidene]amino]phenyl]-, methyl ester (9CI) (CA INDEX NAME)



RN 377748-31-7 HCA
 CN Oxazolo[5,4-d]pyrazolo[1,5-a]pyrimidine-6-carboxamide, 5-[[4-(diethylamino)-2-methylphenyl]imino]-5,9-dihydro-9-oxo-N-pentyl- (9CI) (CA INDEX NAME)



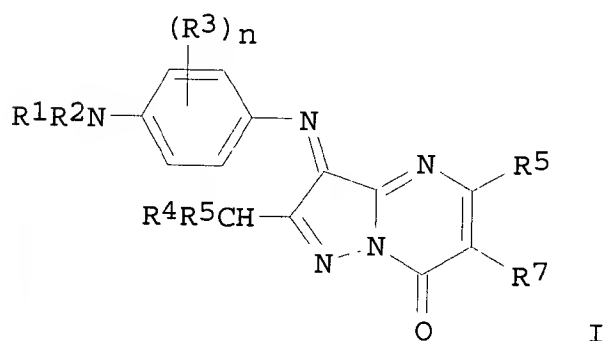
IT 377748-27-1P
 (thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using azacyclic metal chelate dye)
 IT 377748-28-2 377748-29-3 377748-30-6
 377748-31-7

(thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using azacyclic metal chelate dye)

L13 ANSWER 2 OF 11 HCA COPYRIGHT 2002 ACS

136:12892 Material and method for thermal-transfer recording, **ink-jet printing ink**, color toner, and color filter containing pyrazolopyrimidin-7-one derivative chelate dye. Fukuda, Mitsuhiro; Sugino, Motoaki; Honda, Mari; Miura, Norio (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 2001334755 A2 20011204, 23 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-154765 20000525.

GI



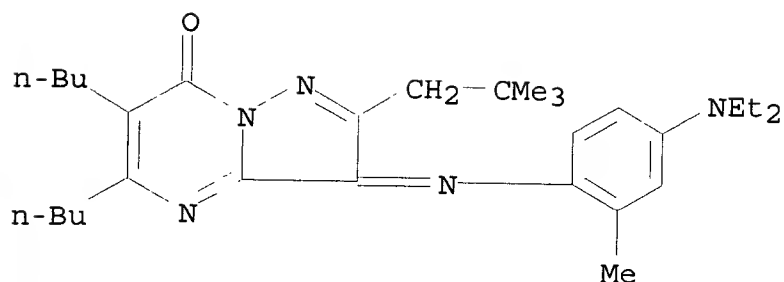
AB The thermal-transfer recording material contains a pyrazolopyrimidin-7-one deriv. dye I [R1, R2 = (substituted) alkyl; R3 = substituent; n = 0-4; R4 = cycloalkyl, secondary or tertiary alkyl, aryl, heterocycle; R5 = H, substituent; R6, R7 = substituent, linking each other to form a ring]. The thermal-transfer recording is carried out by laminating a I-contg. dye-donating layer, which is applied on a support, on a dye receptor layer, which may contain metal ion-contg. compds. and is applied on another support, followed by imagewise heating the laminate to form an image preferably by reaction of the ion-contg. compd. with I. The **ink-jet printing ink**, color toner, and color filter contain a metal-chelate dye formed by reaction of I with metal ion-contg. compds. The chelate dye gives light-resistant colors with good color reprodn.

IT

(thermal-transfer **printing** sheet, **jet-printing ink**, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

RN 377079-65-7 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5,6-dibutyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-(2,2-dimethylpropyl)- (9CI) (CA INDEX NAME)

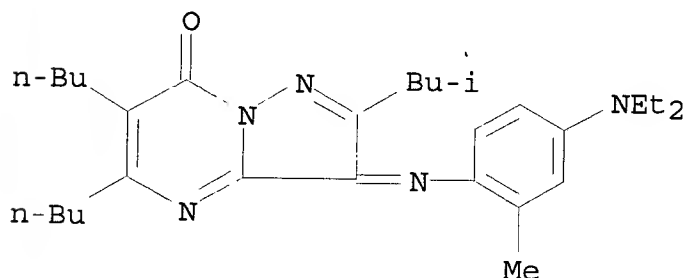


IT 377079-66-8 377079-67-9 377079-68-0
 377079-69-1 377079-70-4 377079-71-5
 377079-72-6 377079-73-7 377079-74-8
 377079-75-9 377079-76-0

(thermal-transfer printing sheet, jet-printing ink, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

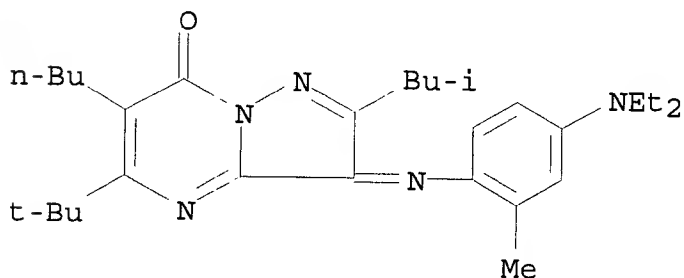
RN 377079-66-8 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5,6-dibutyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 377079-67-9 HCA

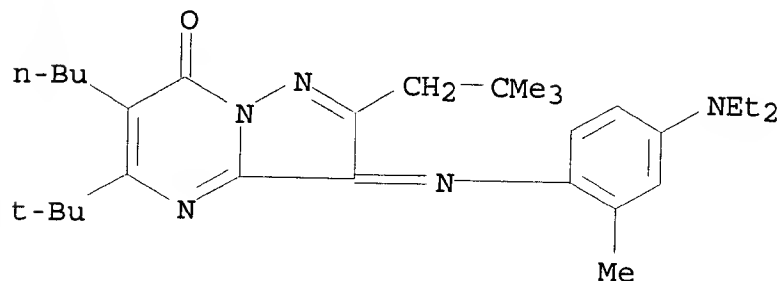
CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 6-butyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-5-(1,1-dimethylethyl)-2-(2-methylpropyl)- (9CI) (CA INDEX NAME)



RN 377079-68-0 HCA

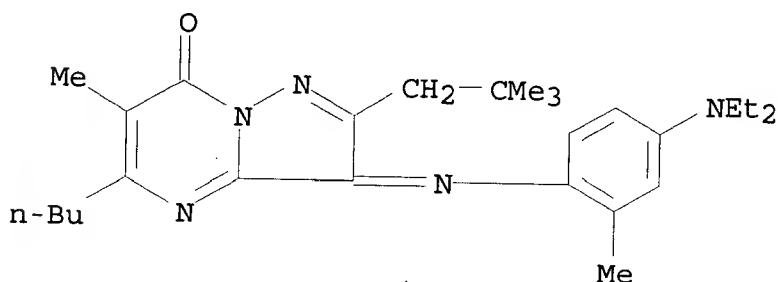
CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 6-butyl-3-[[4-(diethylamino)-2-

methylphenyl]imino]-5-(1,1-dimethylethyl)-2-(2,2-dimethylpropyl)-
(9CI) (CA INDEX NAME)



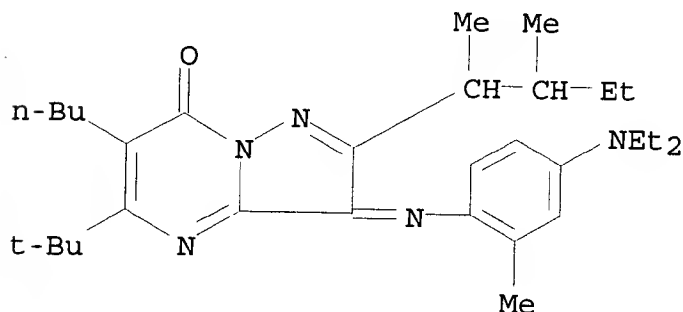
RN 377079-69-1 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5-butyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-(2,2-dimethylpropyl)-6-methyl- (9CI) (CA INDEX NAME)



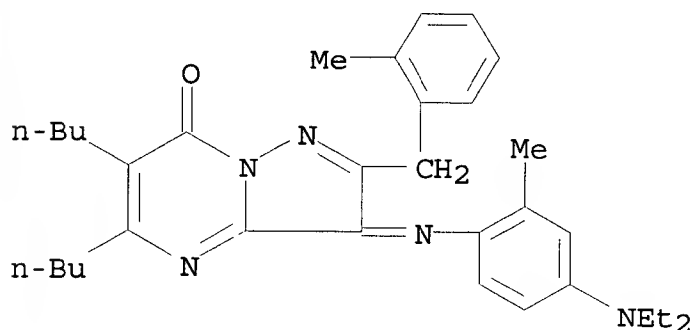
RN 377079-70-4 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 6-butyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-(1,2-dimethylbutyl)-5-(1,1-dimethylethyl)- (9CI) (CA INDEX NAME)

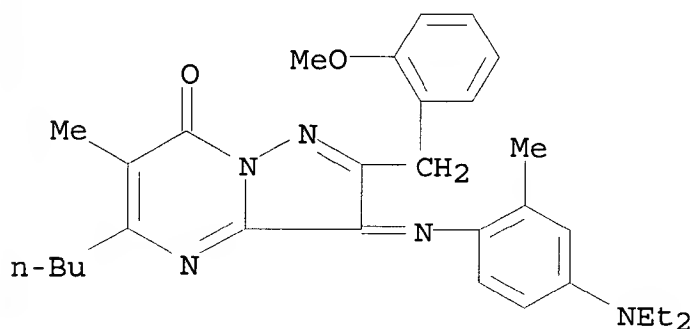


RN 377079-71-5 HCA

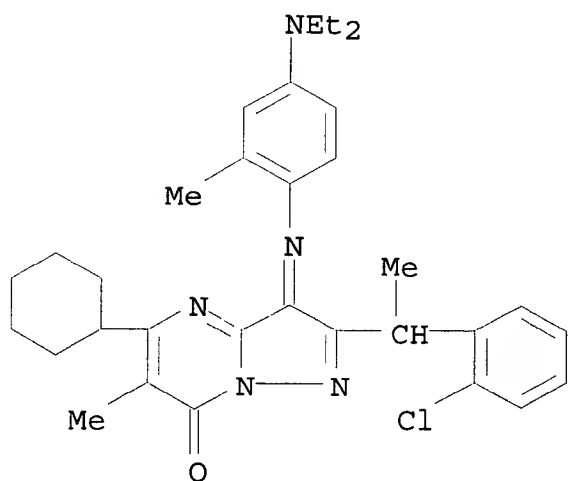
CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5,6-dibutyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-[(2-methylphenyl)methyl]- (9CI) (CA INDEX NAME)



RN 377079-72-6 HCA
 CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5-butyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-2-[(2-methoxyphenyl)methyl]-6-methyl- (9CI) (CA INDEX NAME)

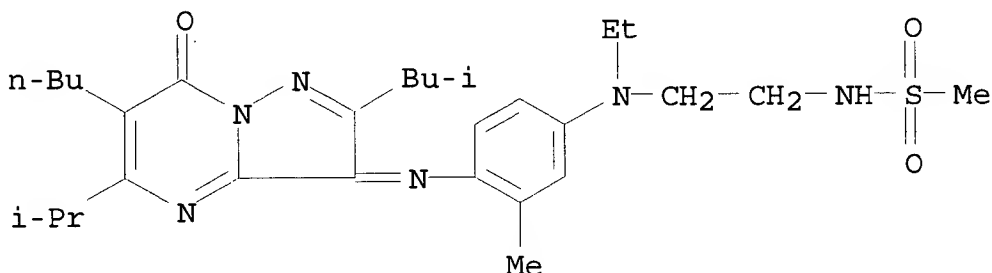


RN 377079-73-7 HCA
 CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 2-[1-(2-chlorophenyl)ethyl]-5-cyclohexyl-3-[[4-(diethylamino)-2-methylphenyl]imino]-6-methyl- (9CI) (CA INDEX NAME)



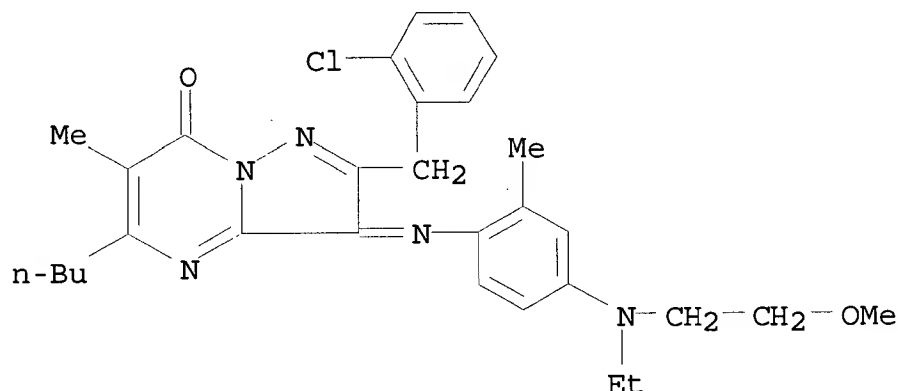
RN 377079-74-8 HCA

CN Methanesulfonamide, N-[2-[[4-[[6-butyl-5-(1-methylethyl)-2-(2-methylpropyl)-7-oxopyrazolo[1,5-a]pyrimidin-3(7H)-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)



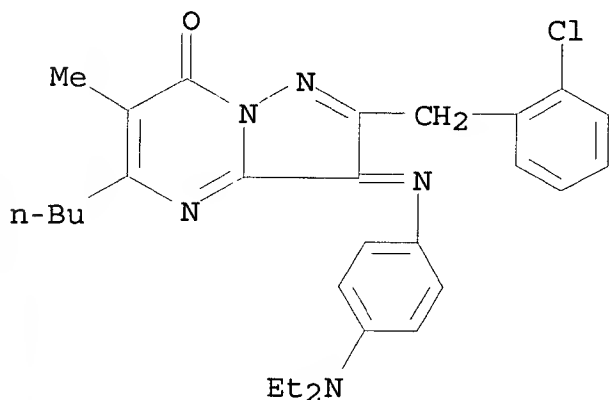
RN 377079-75-9 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5-butyl-2-[(2-chlorophenyl)methyl]-3-[[4-[ethyl(2-methoxyethyl)amino]-2-methylphenyl]imino]-6-methyl- (9CI) (CA INDEX NAME)



RN 377079-76-0 HCA

CN Pyrazolo[1,5-a]pyrimidin-7(3H)-one, 5-butyl-2-[(2-chlorophenyl)methyl]-3-[[4-(diethylamino)phenyl]imino]-6-methyl- (9CI) (CA INDEX NAME)



IT 377079-65-7P

(thermal-transfer printing sheet, jet-printing ink, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

IT 377079-66-8 377079-67-9 377079-68-0
377079-69-1 377079-70-4 377079-71-5
377079-72-6 377079-73-7 377079-74-8
377079-75-9 377079-76-0

(thermal-transfer printing sheet, jet-printing ink, color toner, and color filter using pyrazolopyrimidin-7-one chelate dye)

L13 ANSWER 3 OF 11 HCA COPYRIGHT 2002 ACS

134:117261 Water-based magenta ink-jet inks

having good light and water resistance. Tsutsumi, Takehiro; Hidaka, Yuki; Sawada, Michitaka (Kao Corp., Japan). Jpn. Kokai Tokkyo Koho JP 2001019880 A2 20010123, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-190226 19990705.

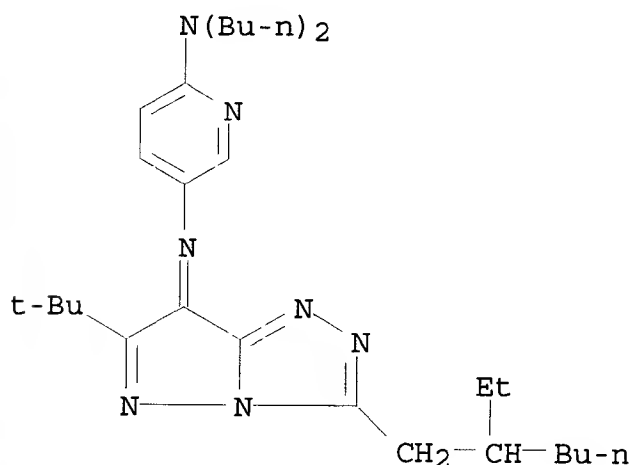
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The inks contain water dispersions of polymer particles contg. magenta coordination compds. composed of .gtoreq.1 dyes A capable of coordinating with metal ions on .gtoreq.2 ligands, shown as I-IV [X1 = atom. group necessary for forming (hetero)cyclic ring, .gtoreq.1 ring being composed of 5-7 atoms and .gtoreq.1 atom adjacent to the azo-bonding C being substituted with N, O, S, Se, or Te; X2 = atom. group necessary for forming (substituted) (hetero)cyclic group, .gtoreq.1 ring being composed of 5-7 atoms; G = ligand; Y = O, S, N:, NH, NR1; R1 = alkyl, alkenyl, aryl, heterocyclic], compds. B contg. metal ions capable of coordinating with the dye A. Thus, 50 g tert-Bu methacrylate-2-hydroxyethyl methacrylate-polyethylene

glycol methacrylate-methacrylic acid copolymer, 50 g V, and Ni[OC(C₇H₁₅):C[C(O)Bu]CO₂CH₂CH₂EtBu]₂ stoichiometric amt. to be coordinated with V were dissolved in MEK, neutralized with NaOH, emulsified in water, and treated under reduced pressure for MEK removal. A water-based ink contained the obtained water dispersion 80, diethylene glycol 10, and water 10 g.

- IT 321392-21-6DP, nickel complex
(water-based magenta **ink-jet inks**
having good light and water resistance)
- RN 321392-21-6 HCA
- CN 2,5-Pyridinediamine, N₂,N₂-dibutyl-N₅-[6-(1,1-dimethylethyl)-3-(2-ethylhexyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]- (9CI) (CA INDEX NAME)



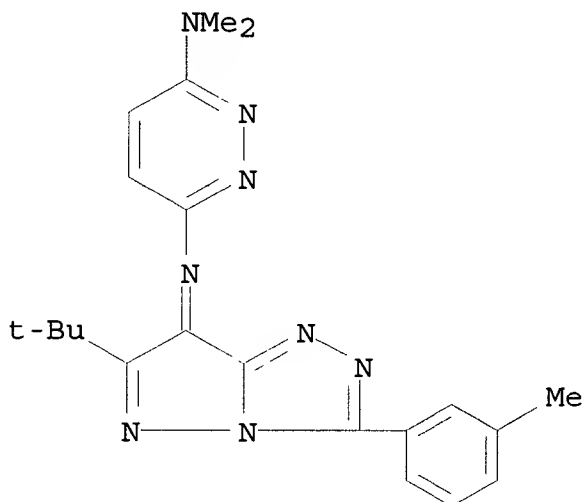
- IT 321392-21-6DP, nickel complex
(water-based magenta **ink-jet inks**
having good light and water resistance)
- L13 ANSWER 4 OF 11 HCA COPYRIGHT 2002 ACS
- 131:65918 Pyridazine derivative dye and thermal-transfer printing material and **ink-jet printing** liquid using same. Oya, Hidenobu; Kida, Shuji; Kaneko, Manabu (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 11152418 A2 19990608 Heisei, 14 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1997-336536 19971120.
- AB The title dye has the general formula B:DA [A = pyridazine ring having at least NR₁R₂ as a substituent, A links to D at the C atom in the pyridazine ring; B = coupler component which links to D at its active point; D = N or CH; R₁, R₂ = H, (substituted) alkyl, (substituted) aryl, (substituted) heterocycle, R₁ and R₂ may link each other to form a ring]. A thermal transfer printing material possessing a layer contg. the dye on a support and an **ink-jet printing** liq. contg. the dye are also claimed. The material and **ink jet** recording liq. produce light-fast images.

IT 227948-04-1P

(pyridazine deriv. dye for thermal-transfer and **ink-jet printing**)

RN 227948-04-1 HCA

CN 3,6-Pyridazinediamine, N'-[6-(1,1-dimethylethyl)-3-(3-methylphenyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N,N-dimethyl- (9CI) (CA INDEX NAME)



IT 227947-70-8 227947-71-9 227947-72-0

227947-73-1 227947-74-2 227947-90-2

227947-91-3 227947-92-4 227947-94-6

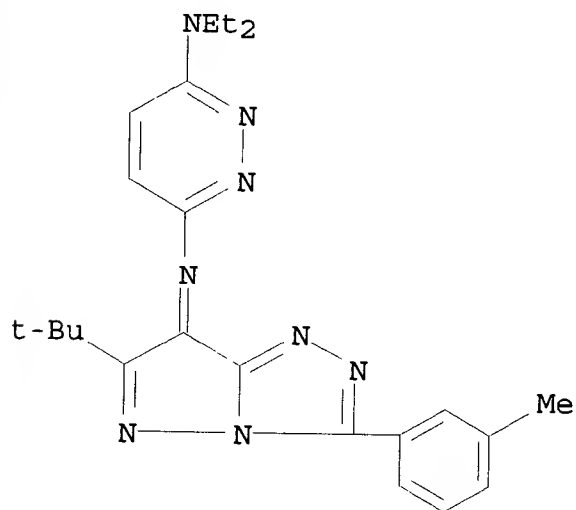
227947-97-9 227947-98-0 227947-99-1

227948-00-7 227948-01-8

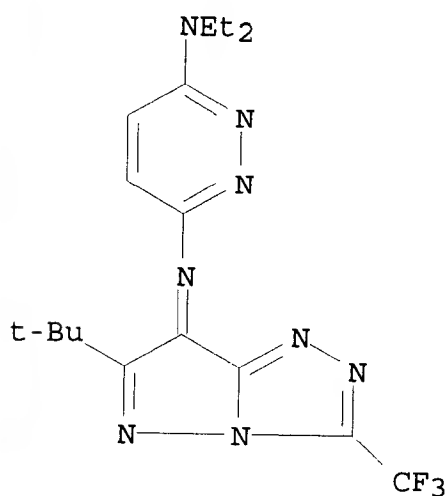
(pyridazine deriv. dye for thermal-transfer and **ink-jet printing**)

RN 227947-70-8 HCA

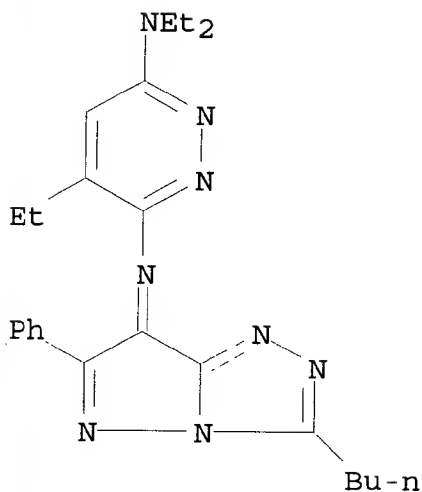
CN 3,6-Pyridazinediamine, N'-[6-(1,1-dimethylethyl)-3-(3-methylphenyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N,N-diethyl- (9CI) (CA INDEX NAME)



RN 227947-71-9 HCA
 CN 3,6-Pyridazinediamine, N'-[6-(1,1-dimethylethyl)-3-(trifluoromethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N,N-diethyl- (9CI) (CA INDEX NAME)

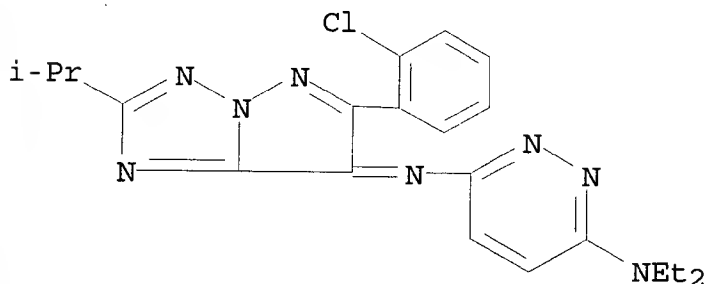


RN 227947-72-0 HCA
 CN 3,6-Pyridazinediamine, N3-(3-butyl-6-phenyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)-N6,N6,4-triethyl- (9CI) (CA INDEX NAME)



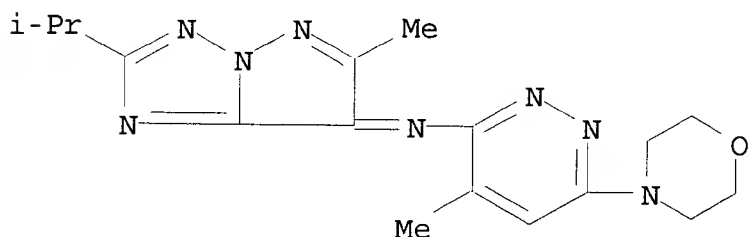
RN 227947-73-1 HCA

CN 3,6-Pyridazinediamine, N'-[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]-N,N-diethyl- (9CI) (CA INDEX NAME)



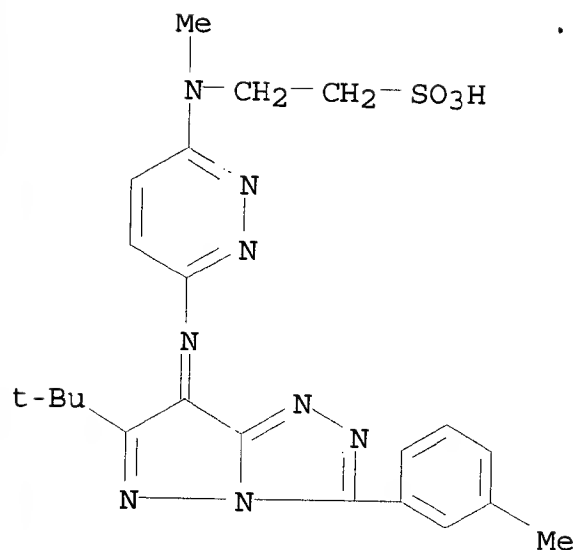
RN 227947-74-2 HCA

CN 3-Pyridazinamine, 4-methyl-N-[6-methyl-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]-6-(4-morpholinyl)- (9CI) (CA INDEX NAME)



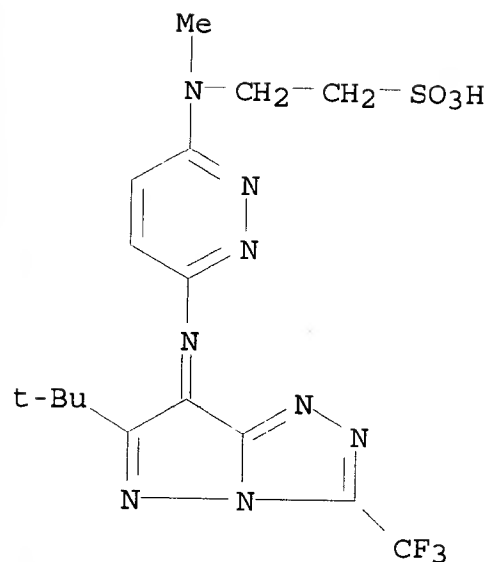
RN 227947-90-2 HCA

CN Ethanesulfonic acid, 2-[[[6-[[6-(1,1-dimethylethyl)-3-(3-methylphenyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-pyridazinyl]methylamino]-, sodium salt (9CI) (CA INDEX NAME)

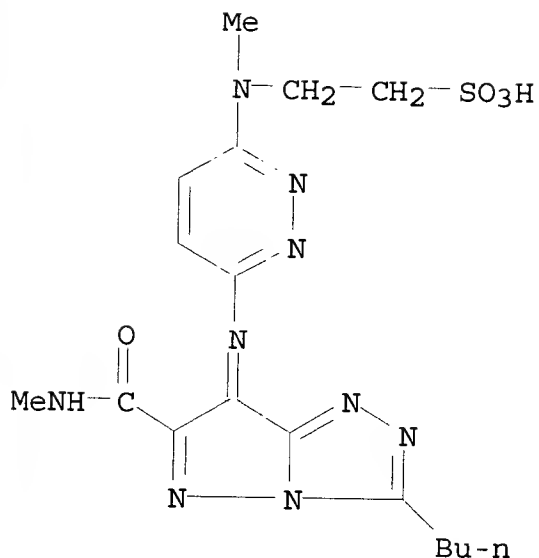


• Na

RN 227947-91-3 HCA
 CN Ethanesulfonic acid, 2-[[6-[[6-(1,1-dimethylethyl)-3-(trifluoromethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-pyridazinyl]methylamino]-, sodium salt (9CI) (CA INDEX NAME)

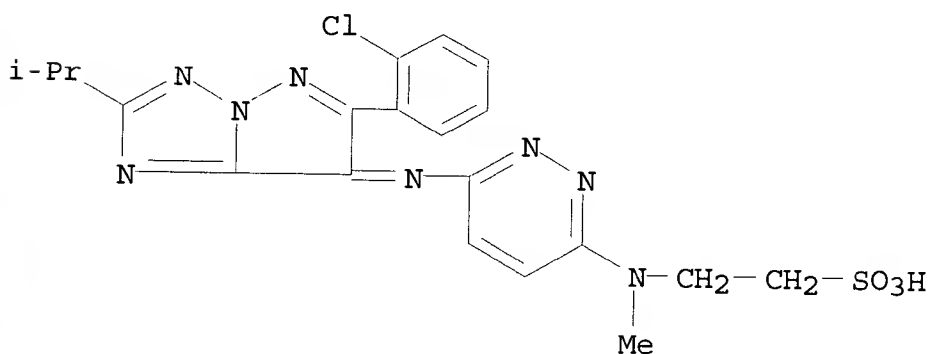


RN 227947-92-4 HCA
 CN Ethanesulfonic acid, 2-[[6-[[3-butyl-6-[(methylamino)carbonyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-3-pyridazinyl]methylamino]-, monosodium salt (9CI) (CA INDEX NAME)



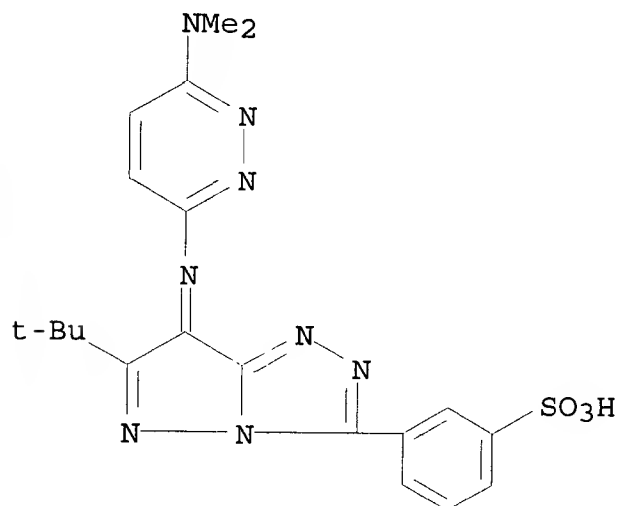
• Na

RN 227947-94-6 HCA
 CN Ethanesulfonic acid, 2-[[6-[[6-(2-chlorophenyl)-2-(1-methylethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]amino]-3-pyridazinyl]methylamino]-, sodium salt (9CI) (CA INDEX NAME)



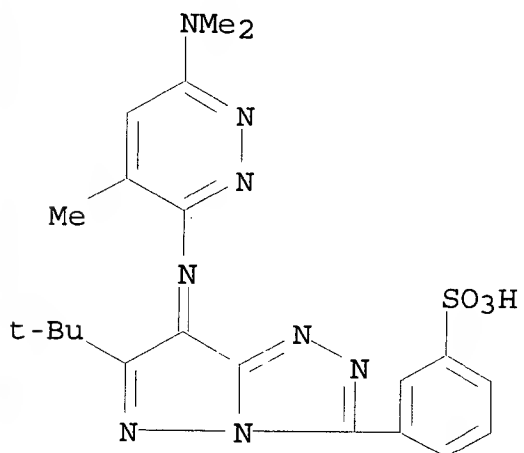
• Na

RN 227947-97-9 HCA
 CN Benzenesulfonic acid, 3-[7-[[6-(dimethylamino)-3-pyridazinyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-, sodium salt (9CI) (CA INDEX NAME)



• Na

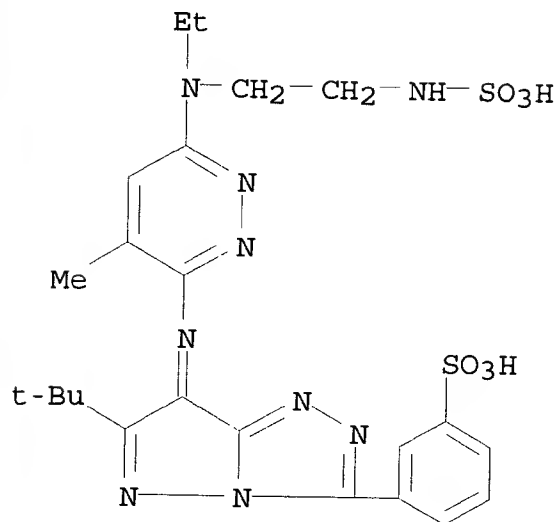
RN 227947-98-0 HCA
 CN Benzenesulfonic acid, 3-[7-[[6-(dimethylamino)-4-methyl-3-pyridazinyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-, sodium salt (9CI) (CA INDEX NAME)



• Na

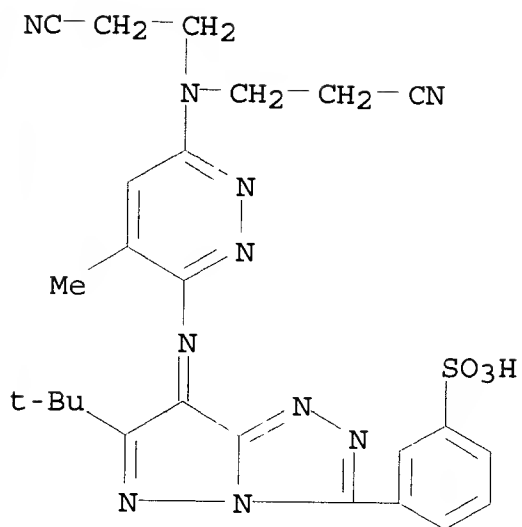
RN 227947-99-1 HCA
 CN Benzenesulfonic acid, 3-[6-(1,1-dimethylethyl)-7-[[6-[ethyl[2-(sulfoamino)ethyl]amino]-4-methyl-3-pyridazinyl]imino]-7H-

pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-, disodium salt (9CI) (CA INDEX NAME)



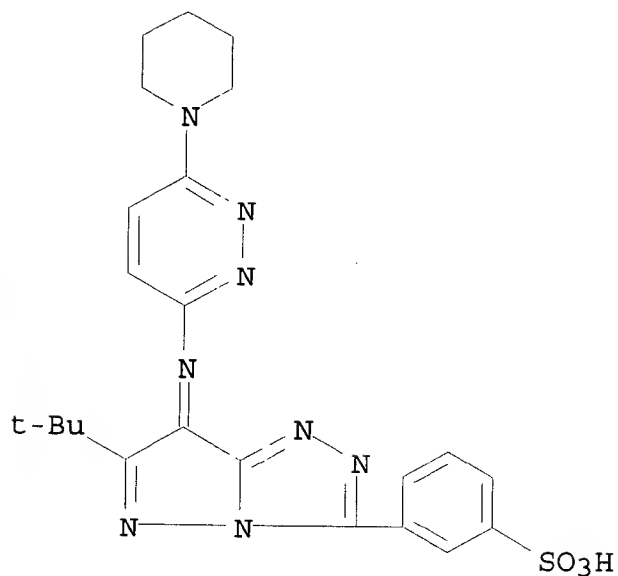
• 2 Na

RN 227948-00-7 HCA
 CN Benzenesulfonic acid, 3-[7-[[6-[bis(2-cyanoethyl)amino]-4-methyl-3-pyridazinyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-, sodium salt (9CI) (CA INDEX NAME)



• Na

RN 227948-01-8 HCA
 CN Benzenesulfonic acid, 3-[6-(1,1-dimethylethyl)-7-[[6-(1-piperidinyl)-3-pyridazinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-, sodium salt (9CI) (CA INDEX NAME)



• Na

IT 227948-04-1P
(pyridazine deriv. dye for thermal-transfer and **ink-jet printing**)

IT 227947-70-8 227947-71-9 227947-72-0
227947-73-1 227947-74-2 227947-90-2
227947-91-3 227947-92-4 227947-94-6
227947-97-9 227947-98-0 227947-99-1
227948-00-7 227948-01-8

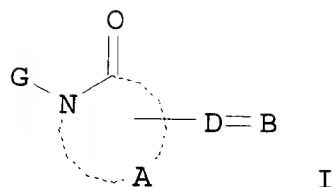
(pyridazine deriv. dye for thermal-transfer and **ink-jet printing**)

L13 ANSWER 5 OF 11 HCA COPYRIGHT 2002 ACS

131:65917 Thermal-transfer printing material and **ink-jet printing** liquid. Ohya, Hidenobu; Kida, Shuji;

Kaneko, Manabu (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP
11151865 A2 19990608 Heisei, 15 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1997-336540 19971120.

GI



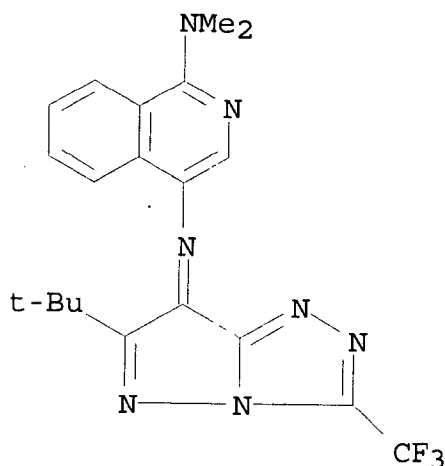
AB The title material comprises a support coated with a layer contg. a dye I [A = atoms required to form a 6-membered heterocycle having NR₁R₂ as a substituent; A links to D at the C atom in the heterocycle; B = coupler component which links to D at its active point; D = N or CH; R₁, R₂ = H, (substituted) alkyl, (substituted) aryl, (substituted) heterocycle, R₁ and R₂ may link each other to form a ring; G = H, (substituted) alkyl, (substituted) aryl]. The **ink-jet printing** liq. also contains the dye. The material and **ink-jet printing** liq. produce light-fast images.

IT 227796-49-8

(printing ink contg. cyclic amide compd. dye)

RN 227796-49-8 HCA

CN 1,4-Isoquinolinediamine, N4-[6-(1,1-dimethylethyl)-3-(trifluoromethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N1,N1-dimethyl- (9CI) (CA INDEX NAME)



IT 227796-49-8

(printing ink contg. cyclic amide compd. dye)

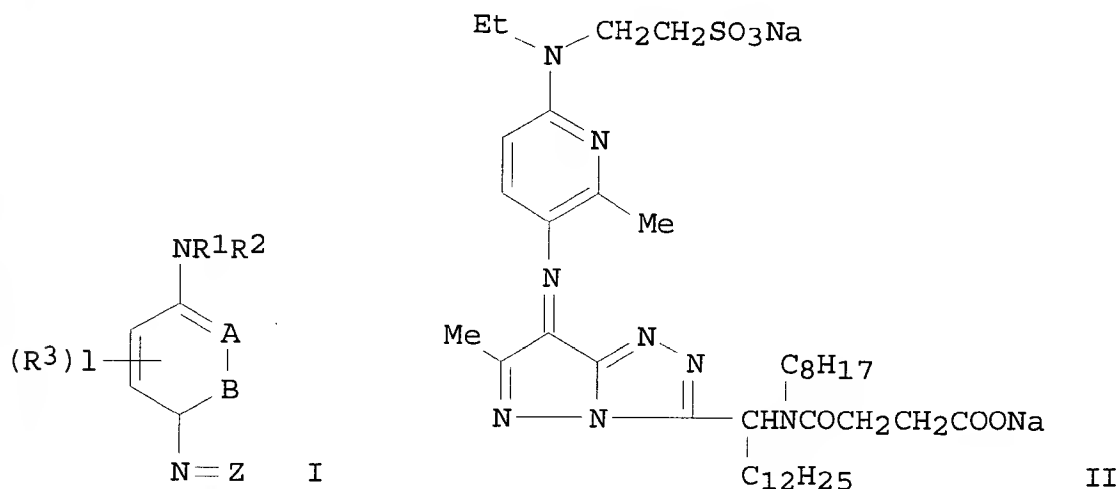
L13 ANSWER 6 OF 11 HCA COPYRIGHT 2002 ACS

129:162950 Anticlogging light- and water-resistant **ink-jet inks**. Oya, Hidenobu (Konica Co., Japan).

Jpn. Kokai Tokkyo Koho JP 10183038 A2 19980707 Heisei, 30 pp.

(Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-347621 19961226.

GI



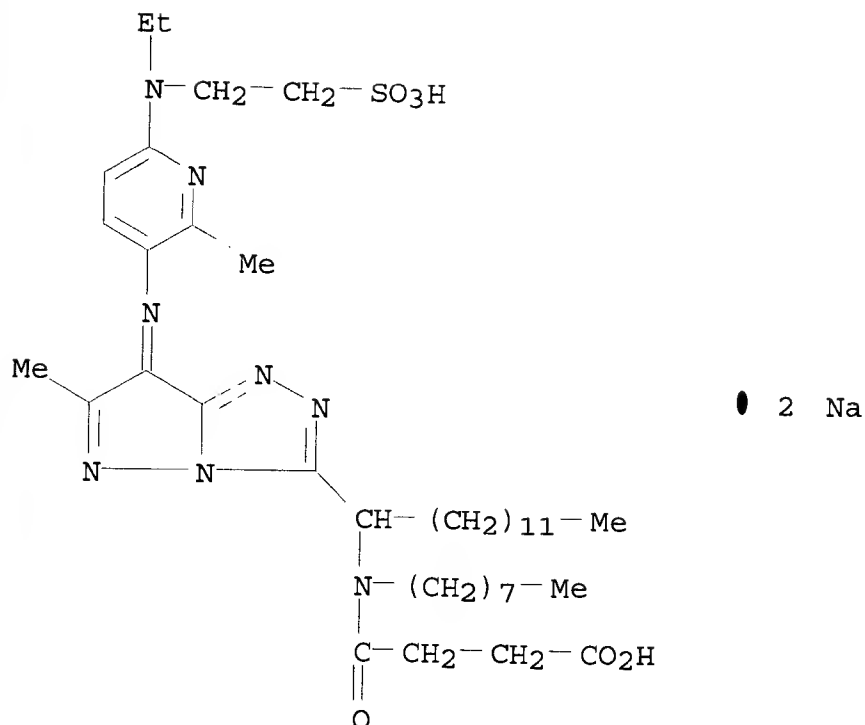
AB The inks comprise dyes I (R_1, R_2 = alkyl, aryl; R_3 = H, substituent; either A or B = N, and the other = CR_4 ; R_4 = H, aryl; Z = structure capable of coupling with oxidized color developing agent bearing p-phenylenediamine unit) contg. .gtoreq.1 sulfonic acid group and C.gtoreq.10 ballast group. Thus, dye II was prepd. and used in the formulation of **ink-jet inks**.

IT 211059-76-6P 211059-90-4P

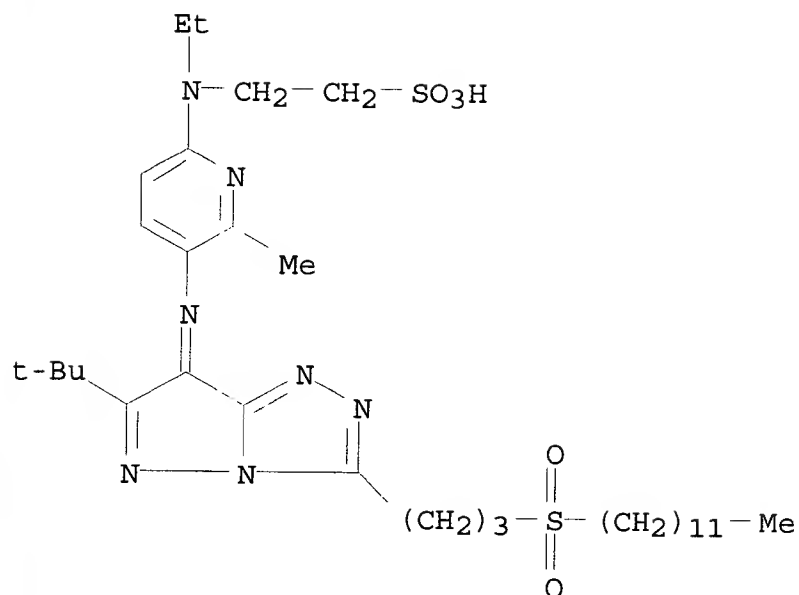
(anticlogging light- and water-resistant **ink-jet inks**)

RN 211059-76-6 HCA

CN Butanoic acid, 4-[[1-[7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]tridecyl]octylamino]-4-oxo-, disodium salt (9CI) (CA INDEX NAME)



RN 211059-90-4 HCA
 CN Ethanesulfonic acid, 2-[[5-[[6-(1,1-dimethylethyl)-3-[3-(dodecylsulfonyl)propyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-6-methyl-2-pyridinyl]ethylamino]-, sodium salt (9CI)
 (CA INDEX NAME)



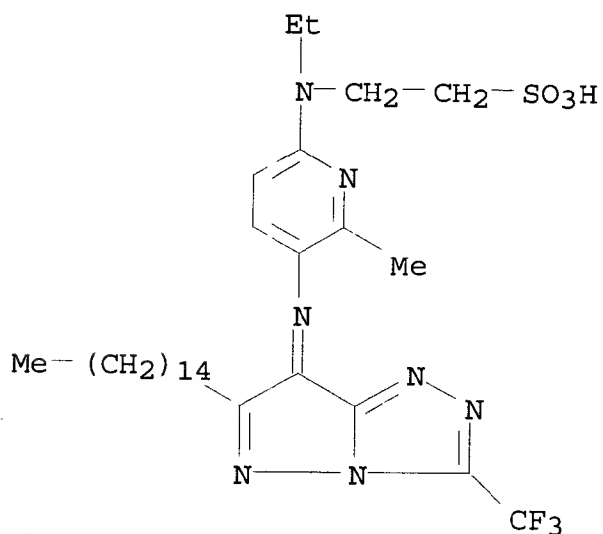
• Na

IT 211059-75-5 211059-77-7 211059-78-8

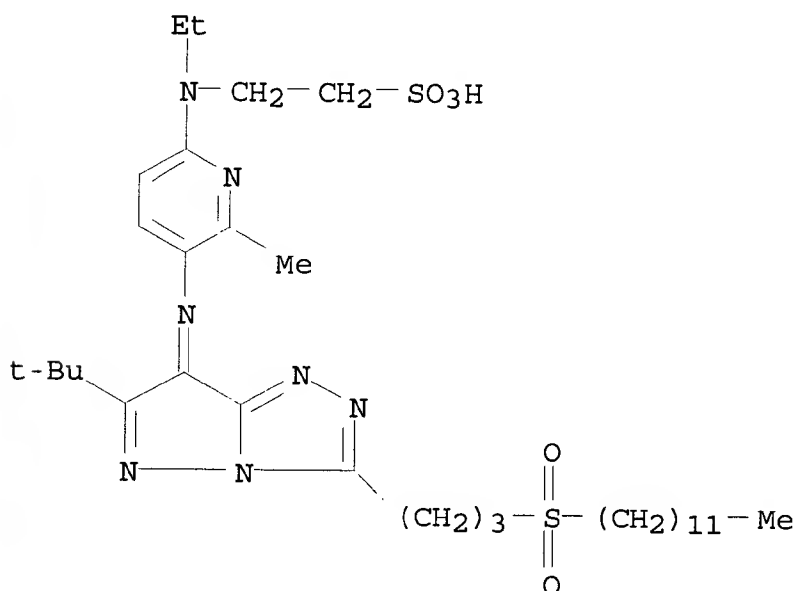
(anticlogging light- and water-resistant **ink-jet inks**)

RN 211059-75-5 HCA

CN Ethanesulfonic acid, 2-[ethyl[6-methyl-5-[[6-pentadecyl-3-(trifluoromethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-2-pyridinyl]amino]-, sodium salt (9CI) (CA INDEX NAME)

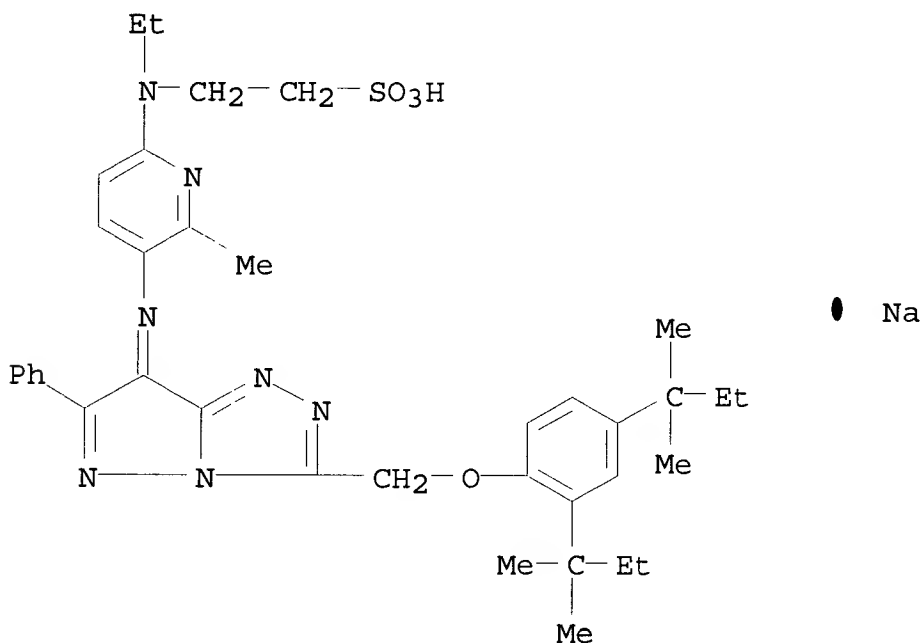


RN 211059-77-7 HCA
 CN Ethanesulfonic acid, 2-[[5-[[6-(1,1-dimethylethyl)-3-[3-(dodecylsulfonyl)propyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-6-methyl-2-pyridinyl]ethylamino]-, ammonium salt (9CI) (CA INDEX NAME)



RN 211059-78-8 HCA

CN Ethanesulfonic acid, 2-[[5-[[3-[[2,4-bis(1,1-dimethylpropyl)phenoxy)methyl]-6-phenyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-6-methyl-2-pyridinyl]ethylamino]-, sodium salt (9CI) (CA INDEX NAME)



IT 211059-76-6P 211059-90-4P
(anticlogging light- and water-resistant **ink-jet inks**)

IT 211059-75-5 211059-77-7 211059-78-8
(anticlogging light- and water-resistant **ink-jet inks**)

L13 ANSWER 7 OF 11 HCA COPYRIGHT 2002 ACS

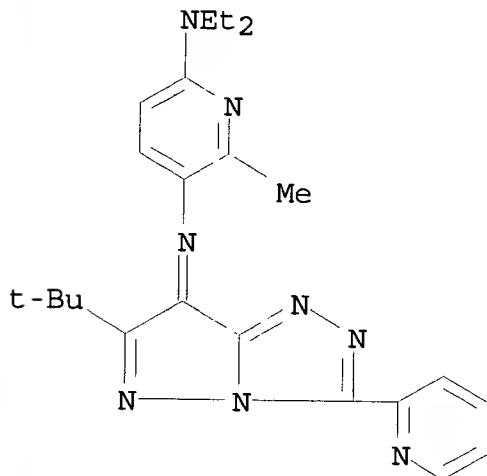
128:198657 Metal complex pigments and material and method for thermal-transfer imaging. Tanaka, Tatsuo; Honda, Mari; Nakayama, Yoriko; Komamura, Tawara (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 10030061 A2 19980203 Heisei, 25 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1996-186195 19960716.

AB The pigments are $M[X1:L1(L2:L3)mY1]n1$ [$X1 = .gtoreq.2$ coordinate bond-forming at. group; $Y1 =$ arom. hydrocarbonyl, 5- or 6-membered heterocyclyl, $L4:Y2$; $Y2 =$ N-contg. 5- or 6-membered heterocyclyl; $L1, L4 =$ (substituted) CH, N; $L2, L3 =$ (substituted) CH; $M =$ metal ion; $m = 0-3$; $n1 = 1-3$]. The pigments provide images with fastness and are useful for color filters, thermal-transfer **printing**, **ink-jet printing**, color (electro)photog., etc.

IT 192075-23-3D, nickel complexes
(metal-methine or -azo dye complexes for thermal-transfer imaging)

RN 192075-23-3 HCA

CN 2,5-Pyridinediamine, N5-[6-(1,1-dimethylethyl)-3-(2-pyridinyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N2,N2-diethyl-6-methyl-
(9CI) (CA INDEX NAME)



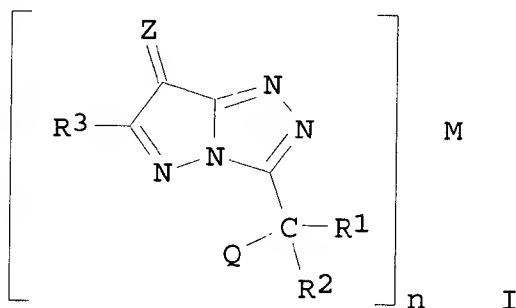
IT 192075-23-3D, nickel complexes
(metal-methine or -azo dye complexes for thermal-transfer
imaging)

L13 ANSWER 8 OF 11 HCA COPYRIGHT 2002 ACS

128:193973 Ink-jet inks for lightfast

magenta images with good color reproducibility. Onodera, Akira;
Ooya, Hidenobu; Ishibashi, Daisuke (Konica Co., Japan). Jpn. Kokai
Tokkyo Koho JP 10036728 A2 19980210 Heisei, 21 pp. (Japanese).
CODEN: JKXXAF. APPLICATION: JP 1996-192135 19960722.

GI



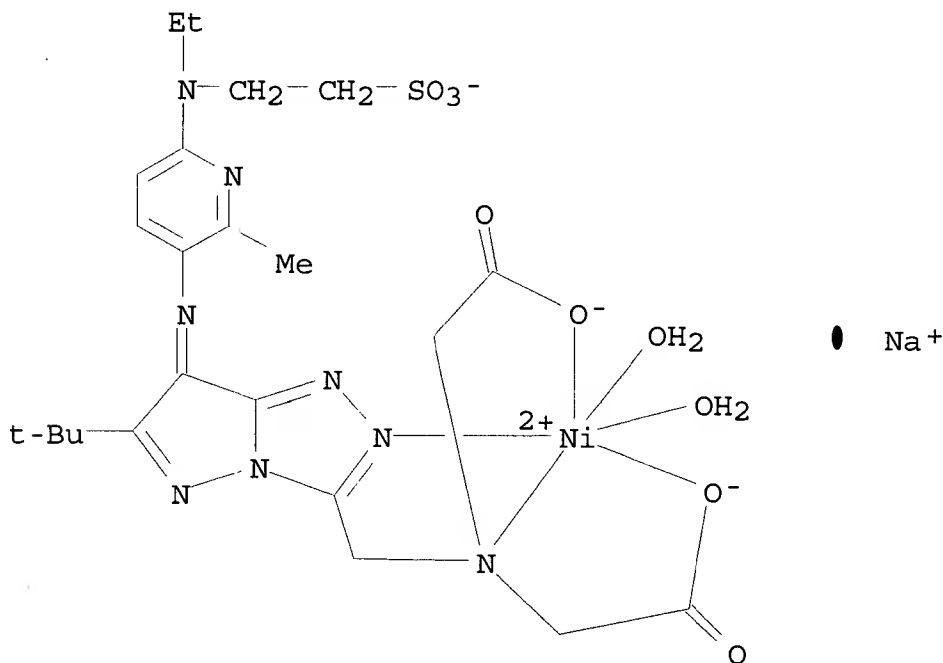
AB The inks contain dyes I (Q = NR4R5, SR6, OR7; R1, R2 = H, aliph.,
arom. or heterocyclic group, Q; R3 = H, aliph., arom. or
heterocyclic group, amino, carbamoyl, alkoxy, carbonyl, carboxy, acyl,
alkylthio, arylthio, sulfoxy, sulfonyl, sulfamoyl, sulfo, alkoxy,
aryloxy; R4, R5 = H, aliph., arom. or heterocyclic group, amino; R6

= monovalent anion, H, aliph., arom. or heterocyclic group; R7 = H, aliph., arom. or heterocyclic group; M = metal ion; Z = dye-forming group; n = 1, 2, 3).

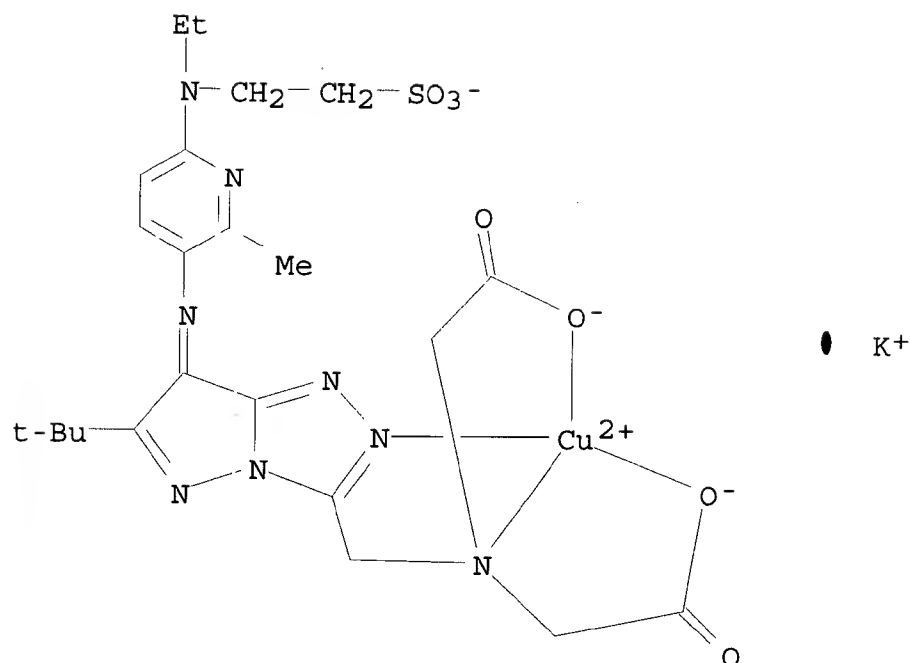
IT 203734-37-6 203734-38-7 203734-39-8
 203734-40-1 203734-41-2 203734-42-3
 203734-43-4 203734-44-5 203734-46-7
 203734-47-8 203734-48-9 203734-49-0
 203734-50-3 203734-51-4 203734-52-5
 203734-53-6 203734-56-9 203734-57-0
 203734-58-1 203734-59-2 203734-60-5
 203734-61-6 203734-62-7 203734-63-8
 203734-64-9 203734-65-0 203734-70-7
 203734-71-8 203734-73-0 203734-74-1
 203734-75-2

(ink-jet inks for lightfast magenta
 images with good color reproducibility)

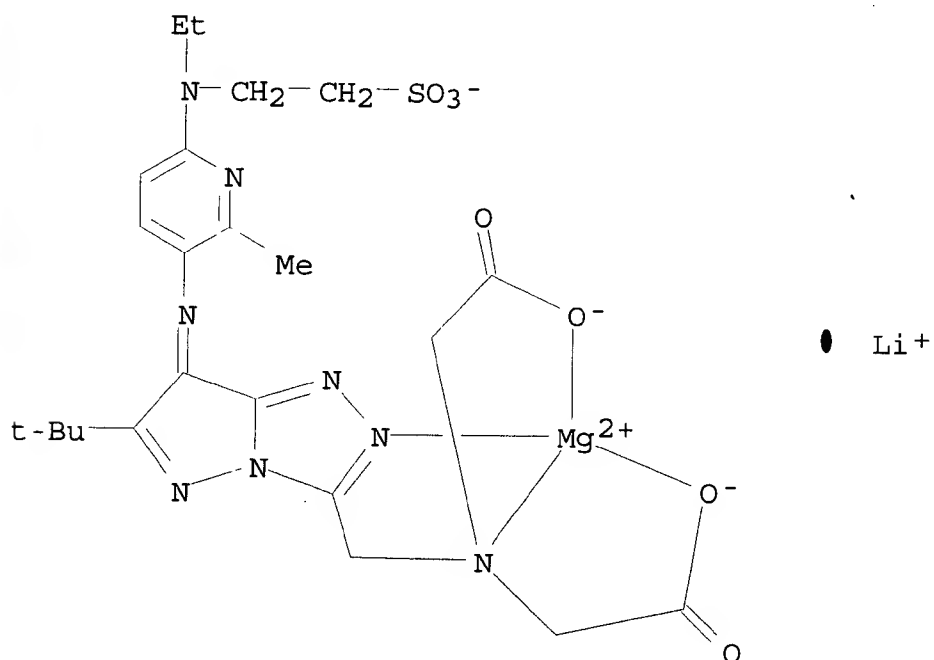
RN 203734-37-6 HCA
 CN Nickelate(1-), diaqua[N-[(carboxy-.kappa.O)methyl]-N-[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(3-)-.kappa.N,.kappa.O]-, sodium (9CI)
 (CA INDEX NAME)



RN 203734-38-7 HCA
 CN Cuprate(1-), [N-[(carboxy-.kappa.O)methyl]-N-[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(3-)-.kappa.N,.kappa.O]-, potassium (9CI) (CA INDEX NAME)

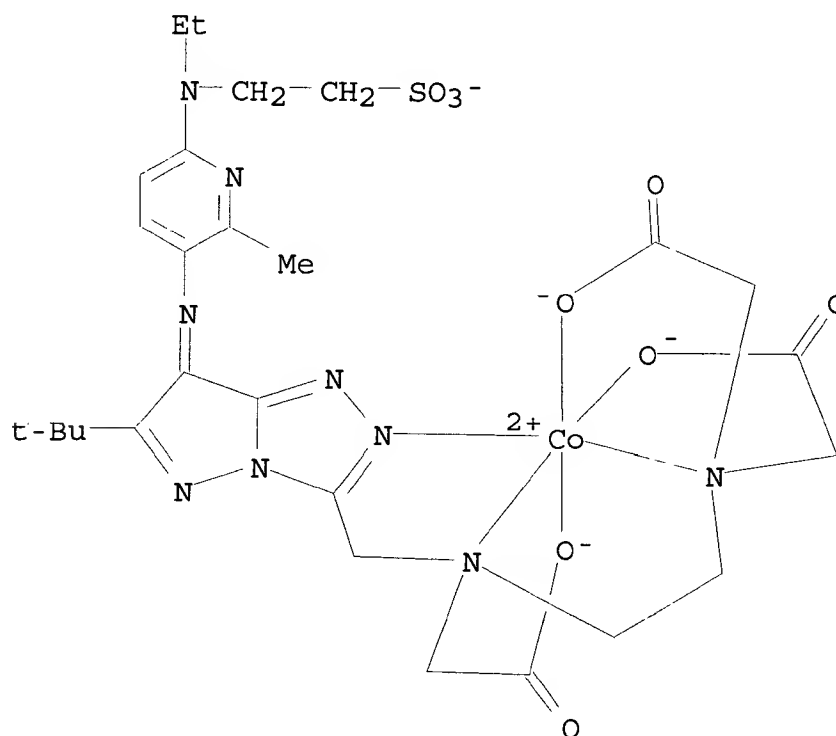


RN 203734-39-8 HCA
 CN Magnesate (1-), [N-[(carboxy-.kappa.O)methyl]-N-[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(3-)-.kappa.N,.kappa.O]-, lithium, (T-4)-(9CI) (CA INDEX NAME)



RN 203734-40-1 HCA
 CN Cobaltate(2-), [N-[2-[bis[(carboxy-.kappa.O)methyl]amino-.kappa.N]ethyl]-N-[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(4-)-.kappa.N,.kappa.O]-, disodium (9CI) (CA INDEX NAME)

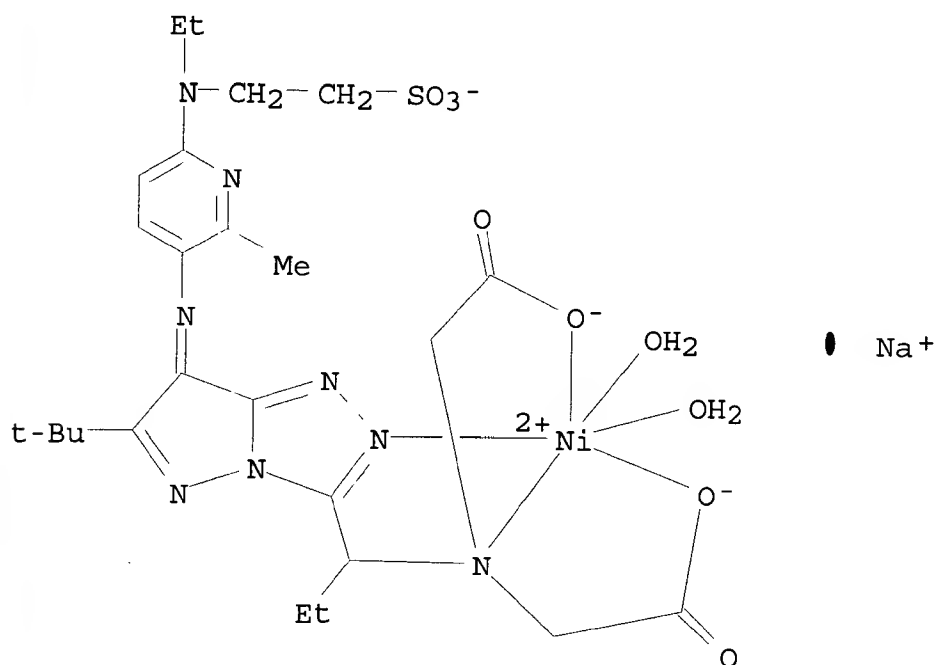
PAGE 1-A



PAGE 2-A

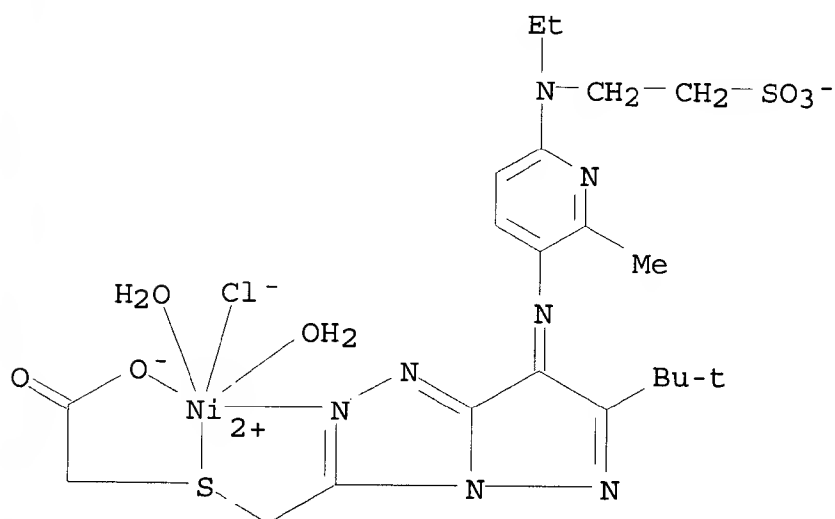
● 2 Na⁺

RN 203734-41-2 HCA
 CN Nickelate(1-), diaqua[N-[(carboxy-.kappa.O)methyl]-N-[1-[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]propyl]glycinato(3-)-.kappa.N,.kappa.O]-, sodium (9CI) (CA INDEX NAME)



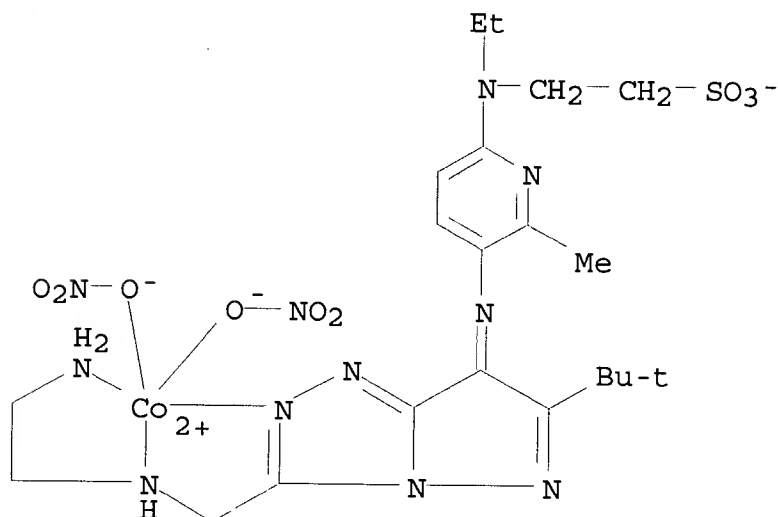
RN 203734-42-3 HCA

CN Nickelate(1-), diaquachloro[[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]thio-.kappa.S]acetato(2-)-.kappa.O]-, sodium (9CI) (CA INDEX NAME)

● Na⁺

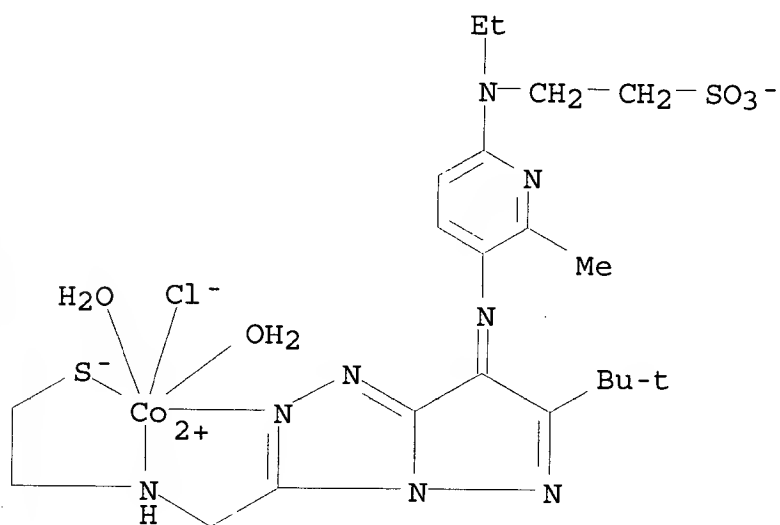
RN 203734-43-4 HCA

CN Cobaltate(1-), [2-[[5-[[3-[[[2-(amino-.kappa.N)ethyl]amino-.kappa.N]methyl]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene-.kappa.N2]amino]-6-methyl-2-pyridinyl]ethylamino]ethanesulfonato]bis(nitrato-.kappa.O)-, potassium (9CI) (CA INDEX NAME)

● K⁺

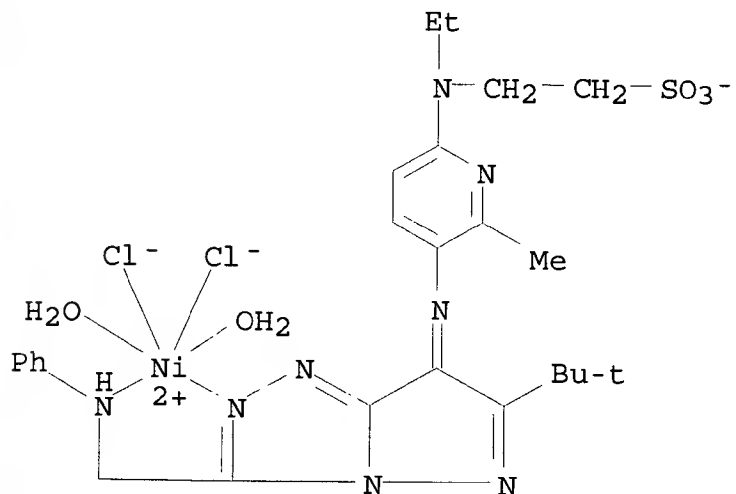
RN 203734-44-5 HCA

CN Cobaltate(1-), diaquachloro[2-[[5-[[6-(1,1-dimethylethyl)-3-[[[2-(mercapto-.kappa.S)ethyl]amino-.kappa.N]methyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene-.kappa.N2]amino]-6-methyl-2-pyridinyl]ethylamino]ethanesulfonato(2-)]-, sodium (9CI) (CA INDEX NAME)



• Na^+

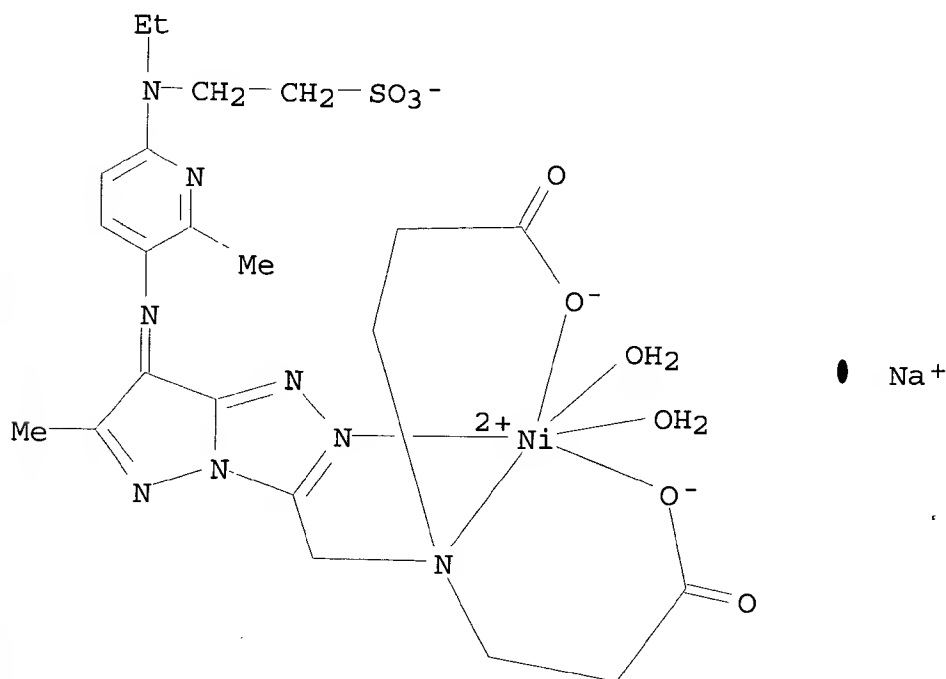
RN 203734-46-7 HCA
 CN Nickelate(1-), diaquadichloro[2-[[5-[[6-(1,1-dimethylethyl)-3-[(phenylamino-.kappa.N)methyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene-.kappa.N2]amino]-6-methyl-2-pyridinyl]ethylamino]ethanesulfonate]-, sodium (9CI) (CA INDEX NAME)



• Na^+

RN 203734-47-8 HCA

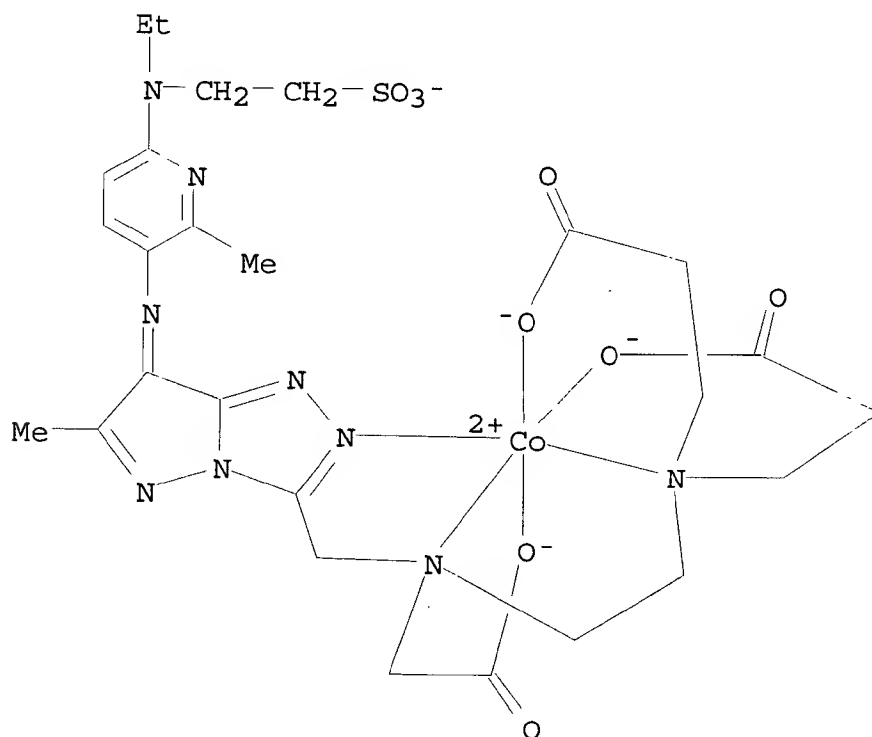
CN Nickelate(1-), diaqua [N-[2-(carboxy-.kappa.O)ethyl]-N-[[7-[[6-ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]-.beta.-alaninato(3-)-.kappa.N,.kappa.O]-, sodium (9CI) (CA INDEX NAME)



RN 203734-48-9 HCA

CN Cobaltate(2-), [N-[2-(carboxy-.kappa.O)ethyl]-N-[2-[[[carboxy-.kappa.O)methyl][[7-[[6-ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]amino-.kappa.N]ethyl]-.beta.-alaninato(4-)-.kappa.N,.kappa.O]-, disodium (9CI) (CA INDEX NAME)

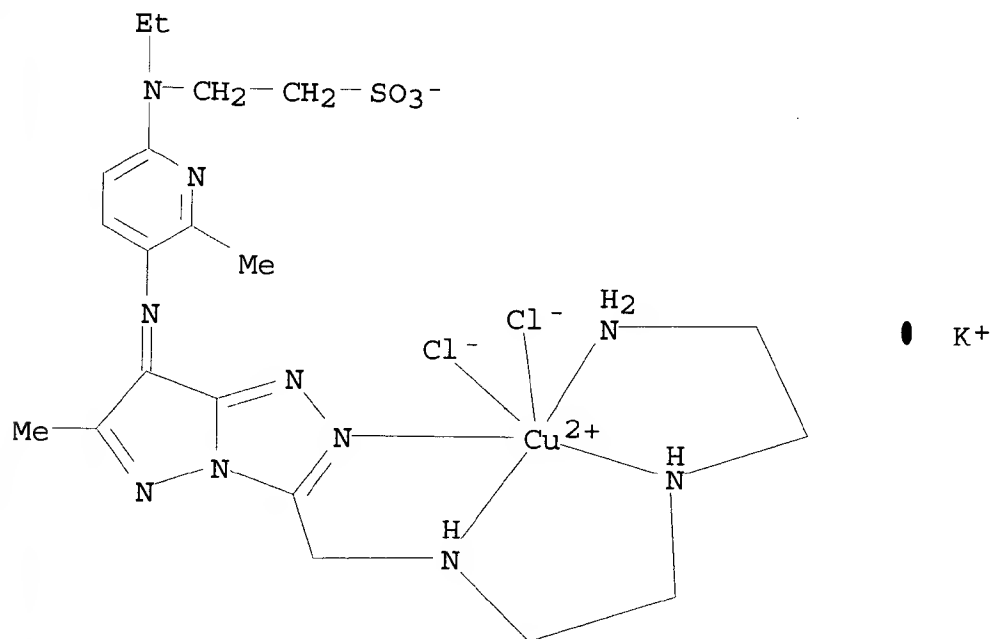
PAGE 1-A



PAGE 2-A

● 2 Na⁺

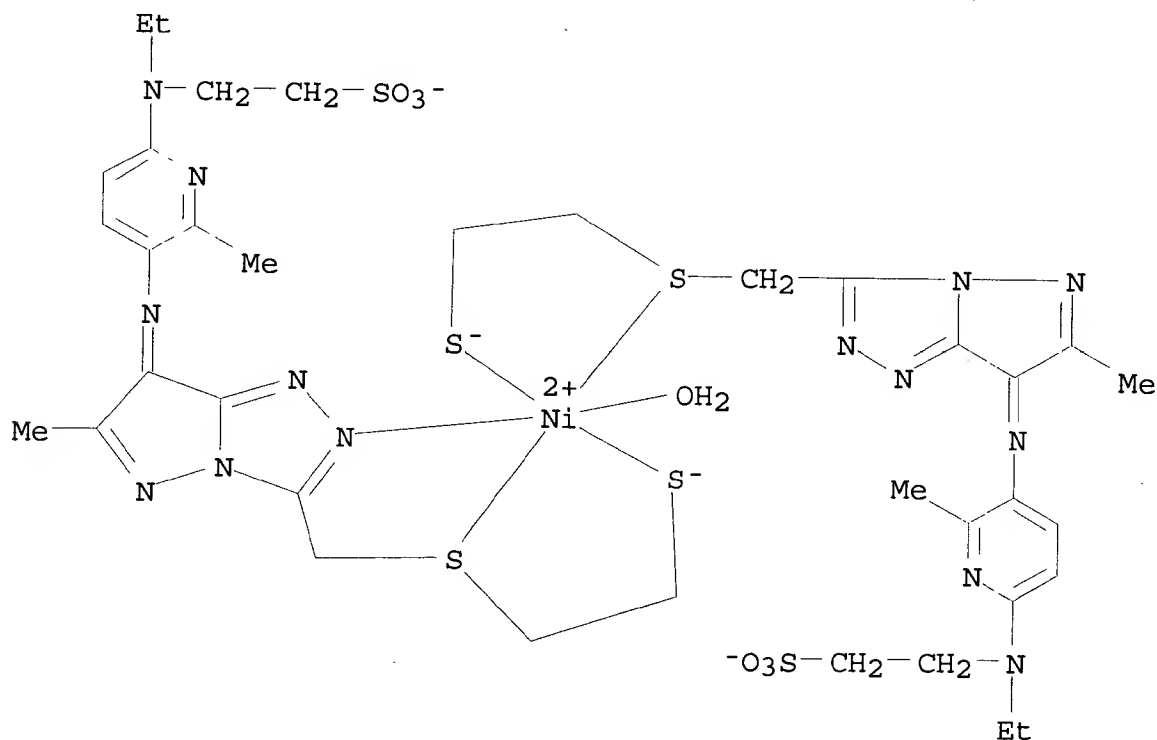
RN 203734-49-0 HCA
 CN Cuprate (1-), [2-[[5-[[3-[[[2-[[2-(amino-.kappa.N)ethyl]amino-.kappa.N]ethyl]amino-.kappa.N]methyl]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene-.kappa.N2]amino]-6-methyl-2-pyridinyl]ethylamino]ethanesulfonato]dichloro-, potassium (9CI) (CA INDEX NAME)



RN 203734-50-3 HCA

CN Nickelate(2-), aqua[2-[ethyl[5-[[3-[[[2-(mercapto-
 .kappa.S)ethyl]thio-.kappa.S)methyl]-6-methyl-7H-pyrazolo[5,1-c]-
 1,2,4-triazol-7-ylidene-.kappa.N2]amino]-6-methyl-2-
 pyridinyl]amino]ethanesulfonato(2-)] [2-[ethyl[5-[[3-[[[2-(mercapto-
 .kappa.S)ethyl]thio-.kappa.S)methyl]-6-methyl-7H-pyrazolo[5,1-c]-
 1,2,4-triazol-7-ylidene]amino]-6-methyl-2-
 pyridinyl]amino]ethanesulfonato(2-)]-, disodium (9CI) (CA INDEX
 NAME)

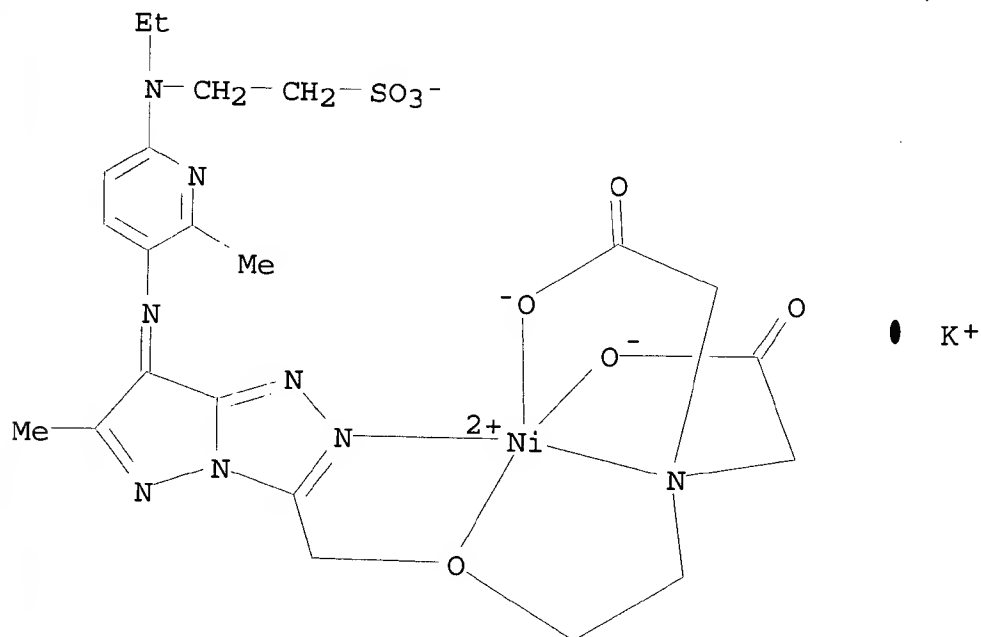
PAGE 1-A



PAGE 2-A

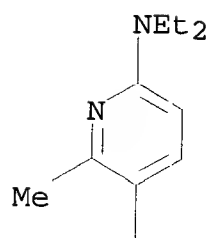
• 2 Na⁺

RN 203734-51-4 HCA
 CN Nickelate(1-), [N-[(carboxy-.kappa.O)methyl]-N-[2-[[7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methoxy-.kappa.O]ethyl]glycinato(3-)-.kappa.N,.kappa.O]-, potassium (9CI)
 (CA INDEX NAME)

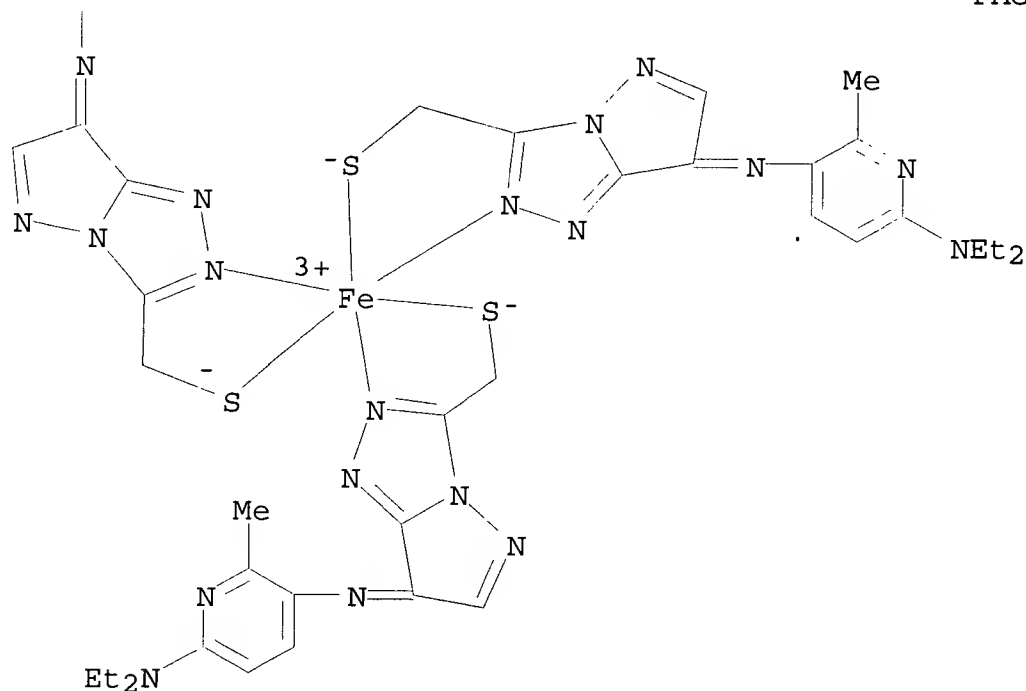


RN 203734-52-5 HCA
 CN Iron, tris[7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazole-3-methanethiolato-
 .kappa.N2,.kappa.S3]- (9CI) (CA INDEX NAME)

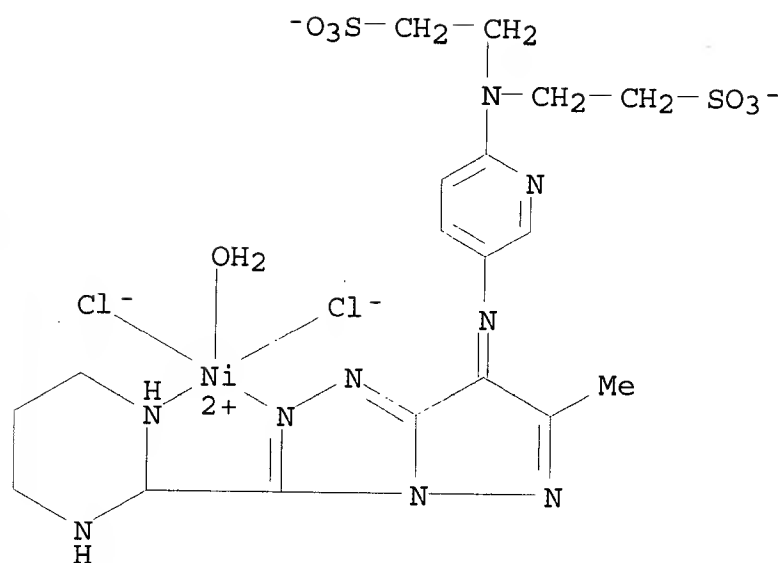
PAGE 1-A



PAGE 2-A



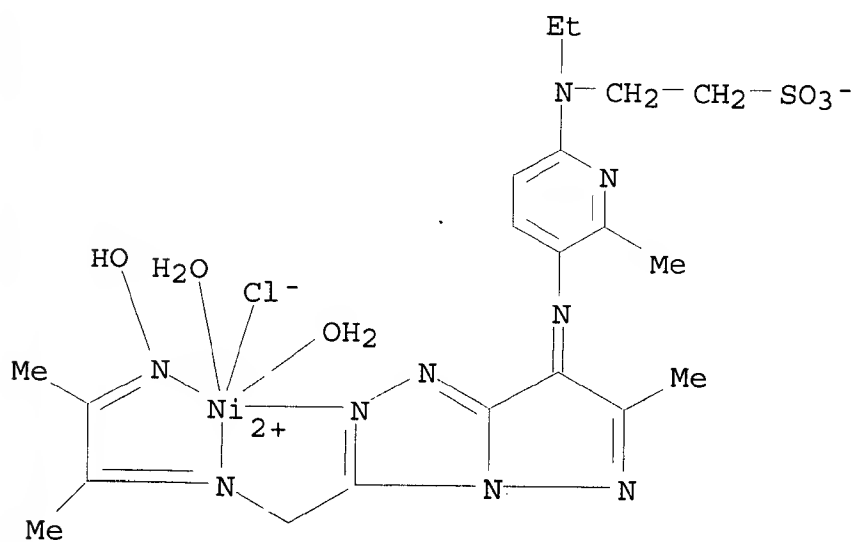
RN 203734-53-6 HCA
 CN Nickelate(2-), aquadichloro[[2,2'-[[5-[[6-methyl-3-(hexahydro-2-pyrimidinyl-.kappa.N1)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene-.kappa.N2]amino]-2-pyridinyl]imino]bis[ethanesulfonato]](2-)]-, dipotassium (9CI) (CA INDEX NAME)



• 2 K⁺

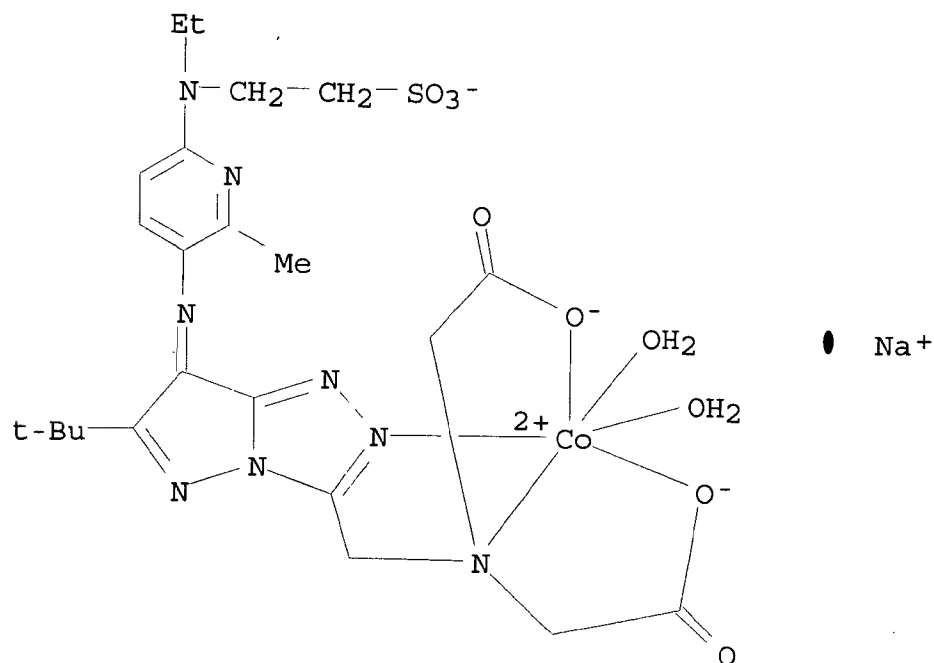
RN 203734-56-9 HCA

CN Nickel, diaquachloro[2-[ethyl[5-[3-[[[2-(hydroxyimino-.kappa.N)-1-methylpropylidene]amino-.kappa.N)methyl]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene-.kappa.N2]amino]-6-methyl-2-pyridinyl]amino]ethanesulfonato]-(9CI) (CA INDEX NAME)



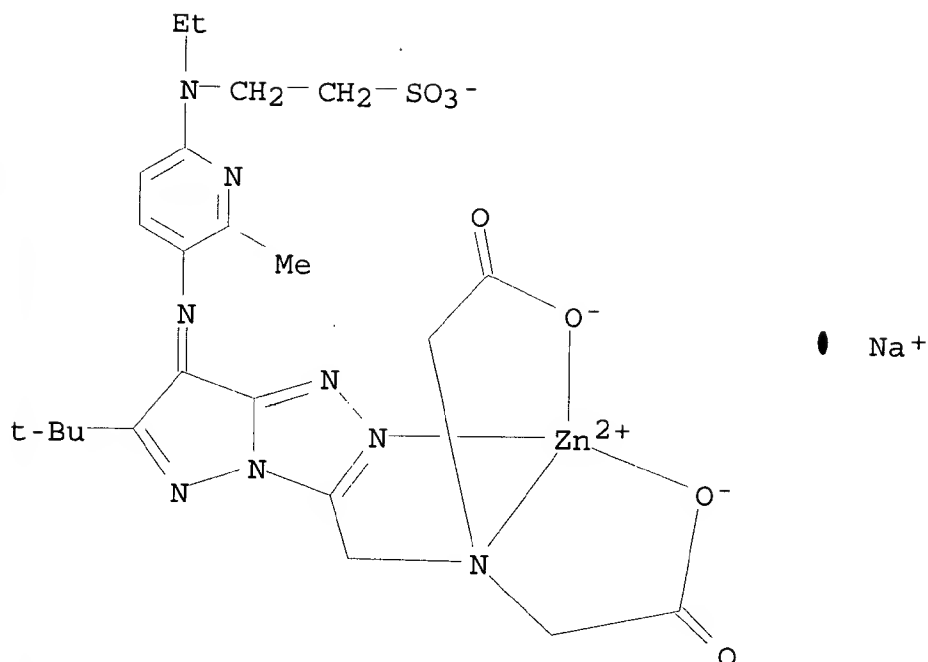
RN 203734-57-0 HCA

CN Cobaltate(1-), diaqua [N-[(carboxy-.kappa.O)methyl]-N-[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(3-)-.kappa.N,.kappa.O]-, sodium (9CI)
(CA INDEX NAME)

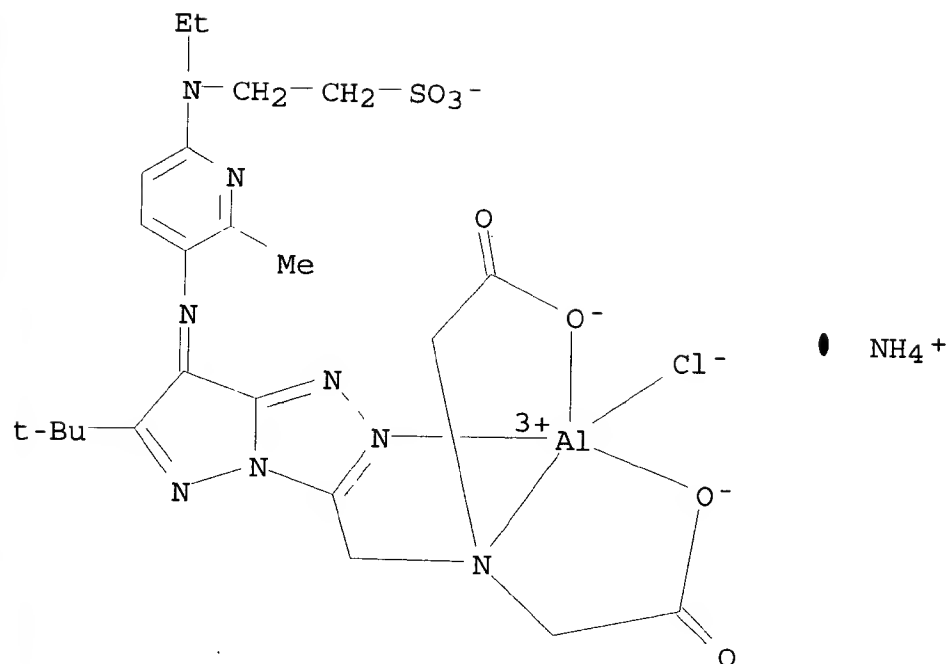


RN 203734-58-1 HCA

CN Zincate(1-), [N-[(carboxy-.kappa.O)methyl]-N-[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(3-)-.kappa.N,.kappa.O]-, sodium, (T-4)- (9CI) (CA INDEX NAME)



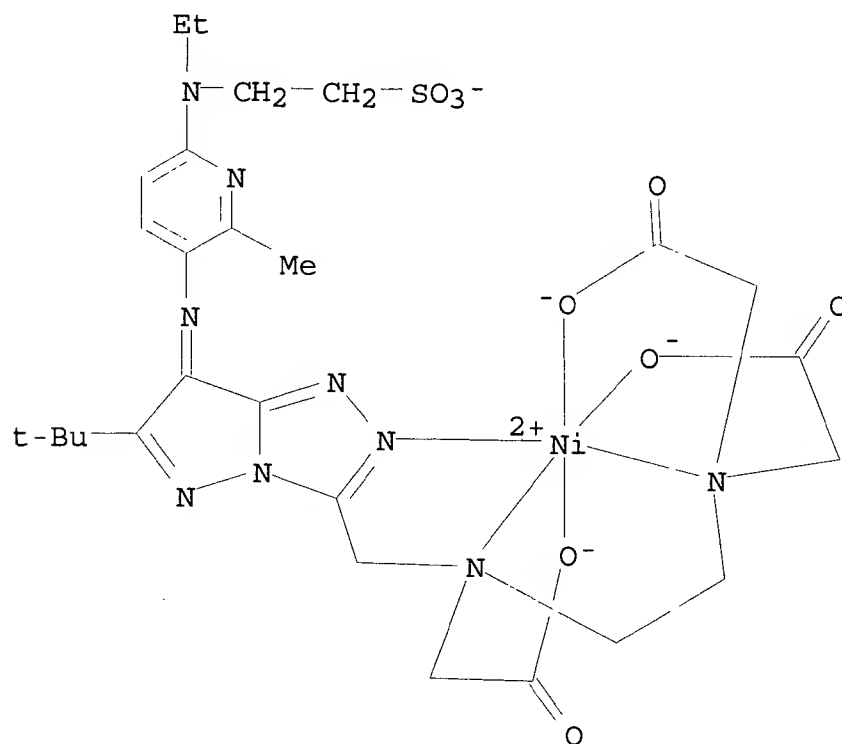
RN 203734-59-2 HCA
 CN Aluminate(1-), [N-[(carboxy-.kappa.O)methyl]-N-[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(3-)-.kappa.N,.kappa.O]chloro-, ammonium (9CI) (CA INDEX NAME)



RN 203734-60-5 HCA

CN Nickelate(2-), [N-[2-[bis[(carboxy-.kappa.O)methyl]amino-.kappa.N]ethyl]-N-[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(4-)-.kappa.N,.kappa.O]-, disodium (9CI) (CA INDEX NAME)

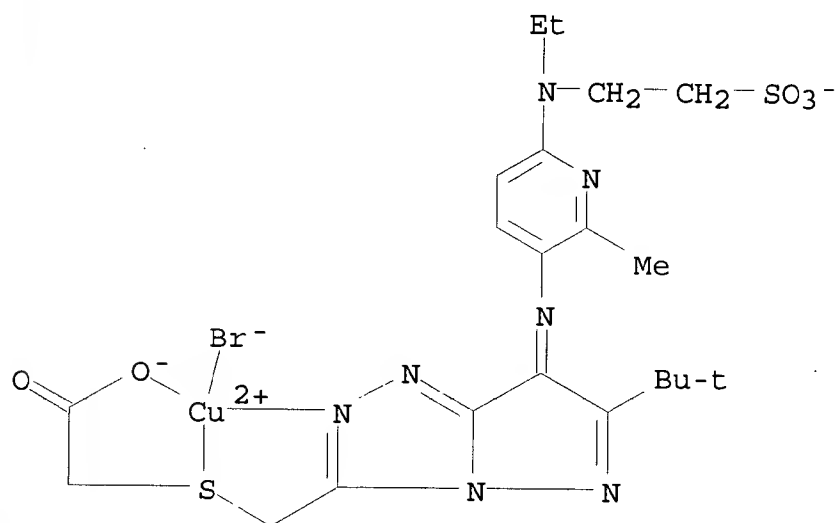
PAGE 1-A



PAGE 2-A

● 2 Na⁺

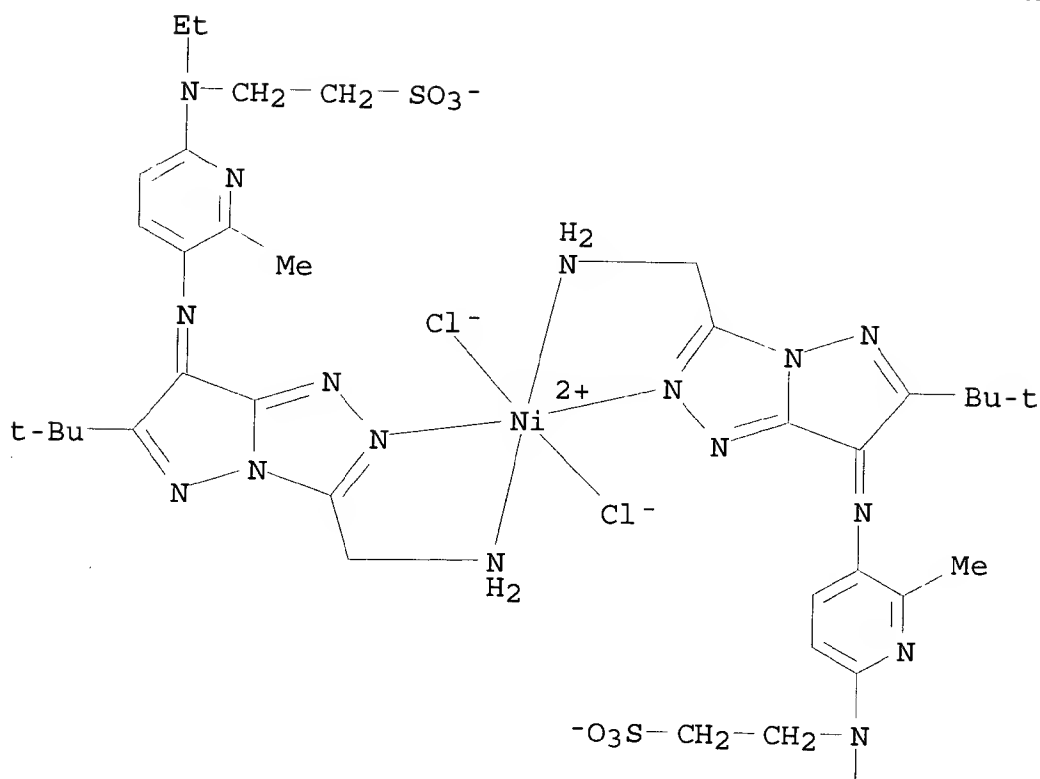
RN 203734-61-6 HCA
 CN Cuprate(1-), bromo[[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]thio-.kappa.S]acetato(2-)-.kappa.O]-, sodium (9CI) (CA INDEX NAME)



• Na⁺

RN 203734-62-7 HCA
 CN Nickelate(2-), bis[2-[[5-[[3-[(amino-.kappa.N)methyl]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene-.kappa.N2]amino]-6-methyl-2-pyridinyl]ethylamino]ethanesulfonato]dichloro-, diammonium (9CI) (CA INDEX NAME)

PAGE 1-A

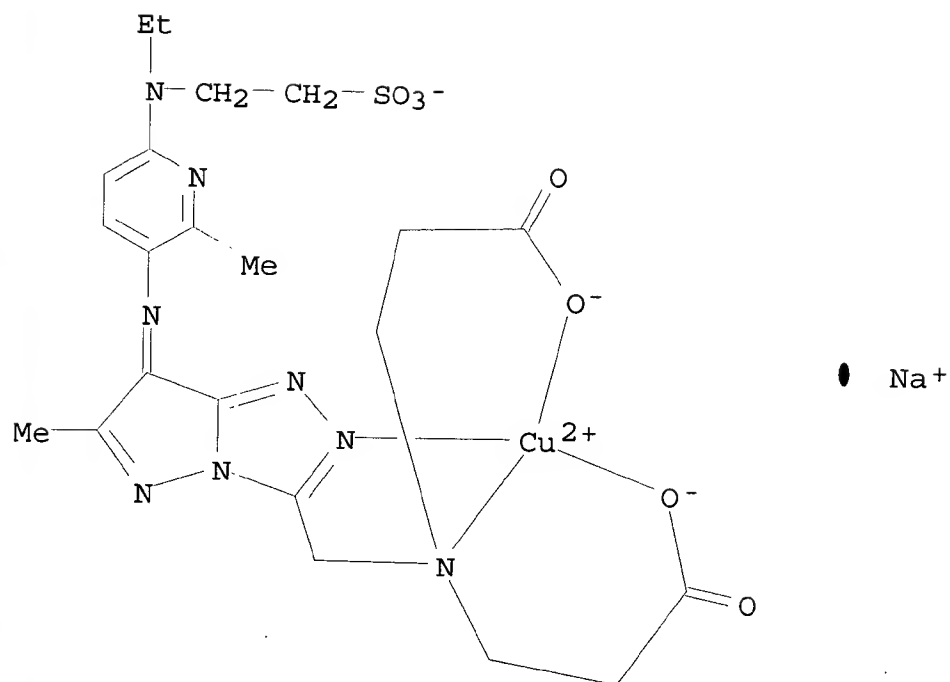


PAGE 2-A

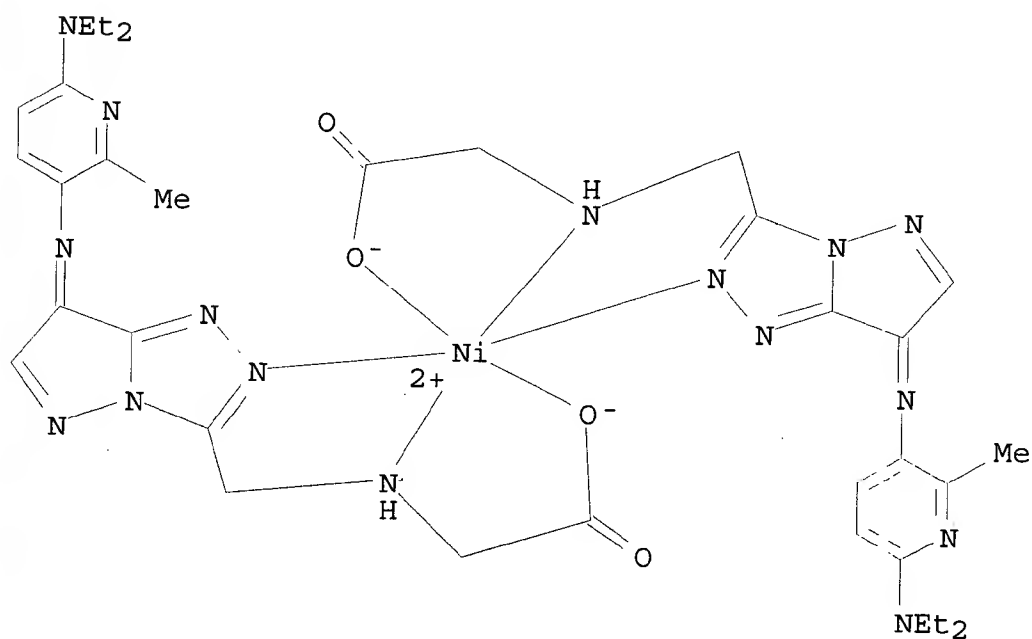
Et

● 2 NH_4^+

RN 203734-63-8 HCA
 CN Cuprate(1-), [N-[2-(carboxy-.kappa.O)ethyl]-N-[[7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]-.beta.-alaninato(3-)-.kappa.N,.kappa.O]-, sodium (9CI) (CA INDEX NAME)



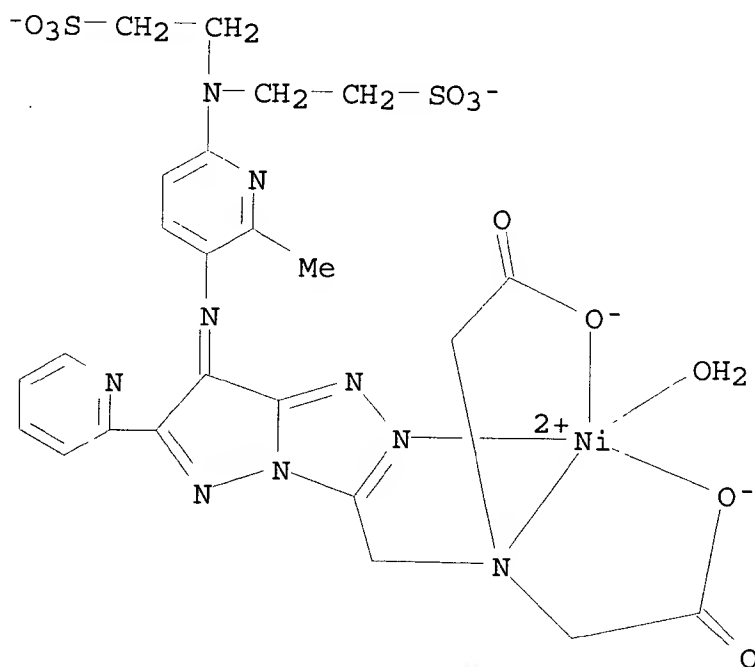
RN 203734-64-9 HCA
 CN Nickel, bis[N-[[7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato-.kappa.N,.kappa.O]- (9CI) (CA INDEX NAME)



RN 203734-65-0 HCA

CN Nickelate(2-), aqua[N-[[7-[[6-[bis(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-6-(2-pyridinyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]-N-[(carboxy-.kappa.O)methyl]glycinato(4-)-.kappa.N,.kappa.O]-, disodium (9CI) (CA INDEX NAME)

PAGE 1-A

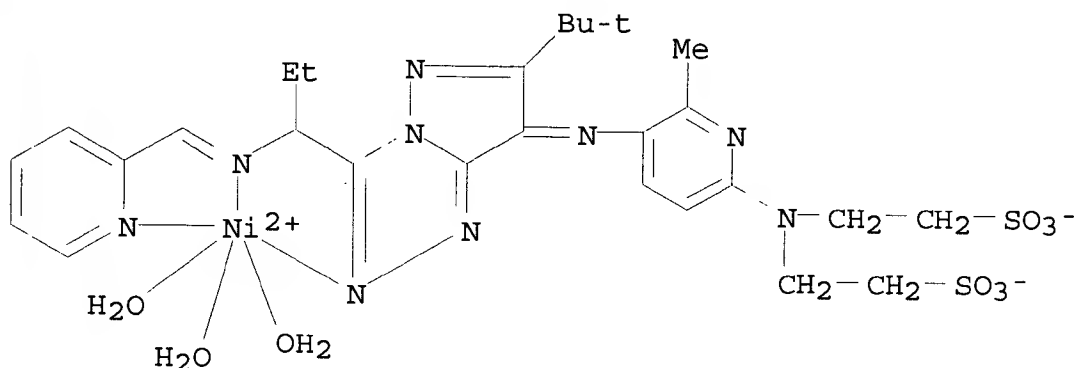


PAGE 2-A

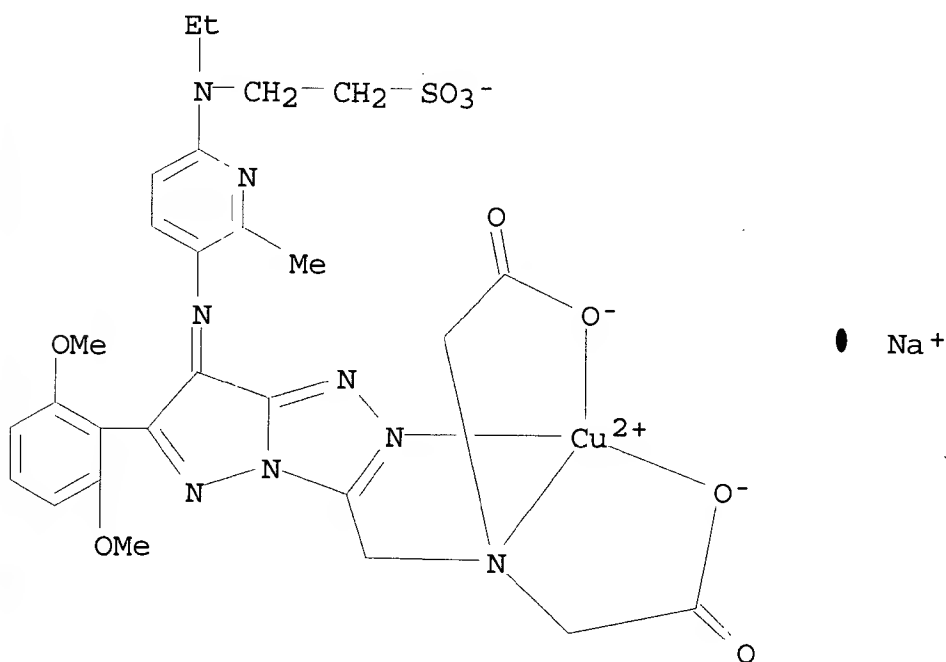
● 2 Na⁺

RN 203734-70-7 HCA

CN Nickel, triaqua[[2,2'-[[5-[[6-(1,1-dimethylethyl)-3-[1-[[2-pyridinyl-.kappa.N)methylene]amino-.kappa.N]propyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-6-methyl-2-pyridinyl]imino]bis[ethanesulfonato]](2-)]- (9CI) (CA INDEX NAME)

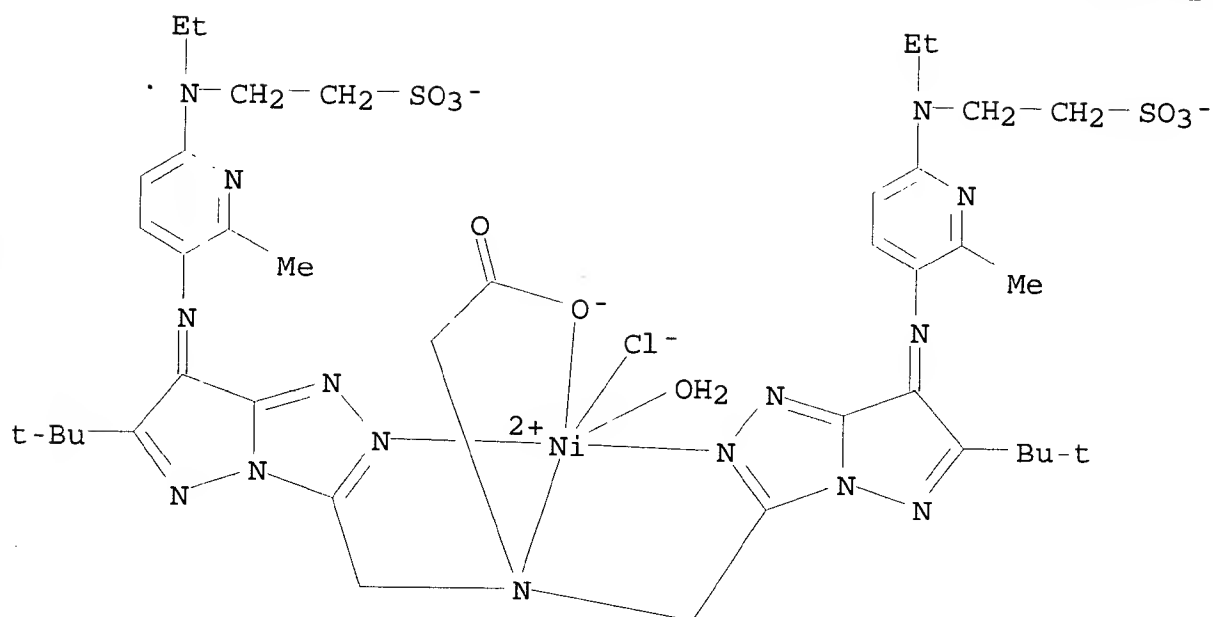


RN 203734-71-8 HCA
 CN Cuprate(1-), [N-[(carboxy-.kappa.O)methyl]-N-[[6-(2,6-dimethoxyphenyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(3-)-.kappa.N,.kappa.O]-, sodium (9CI)
 (CA INDEX NAME)



RN 203734-73-0 HCA
 CN Nickelate(2-), aqua [N,N-bis[[6-(1,1-dimethylethyl)-7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato(3-)-.kappa.N,.kappa.O]chloro-, disodium (9CI) (CA INDEX NAME)

PAGE 1-A

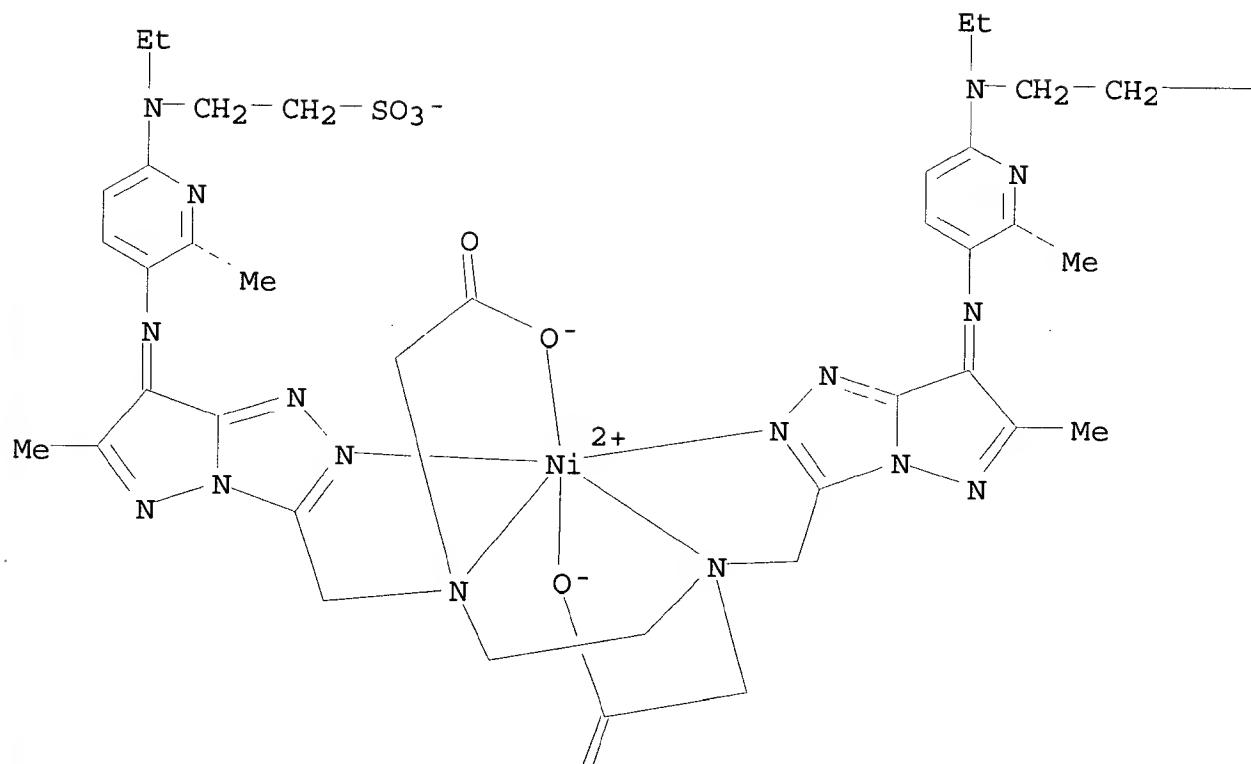


PAGE 2-A

● 2 Na⁺

RN 203734-74-1 HCA
 CN Nickelate(2-), [[N,N'-1,2-ethanediylbis[N-[[7-[[6-[ethyl(2-sulfoethyl)amino]-2-methyl-3-pyridinyl]imino]-6-methyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-.kappa.N2]methyl]glycinato-.kappa.N,.kappa.O]](4-)]-, disodium (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

—SO₃⁻

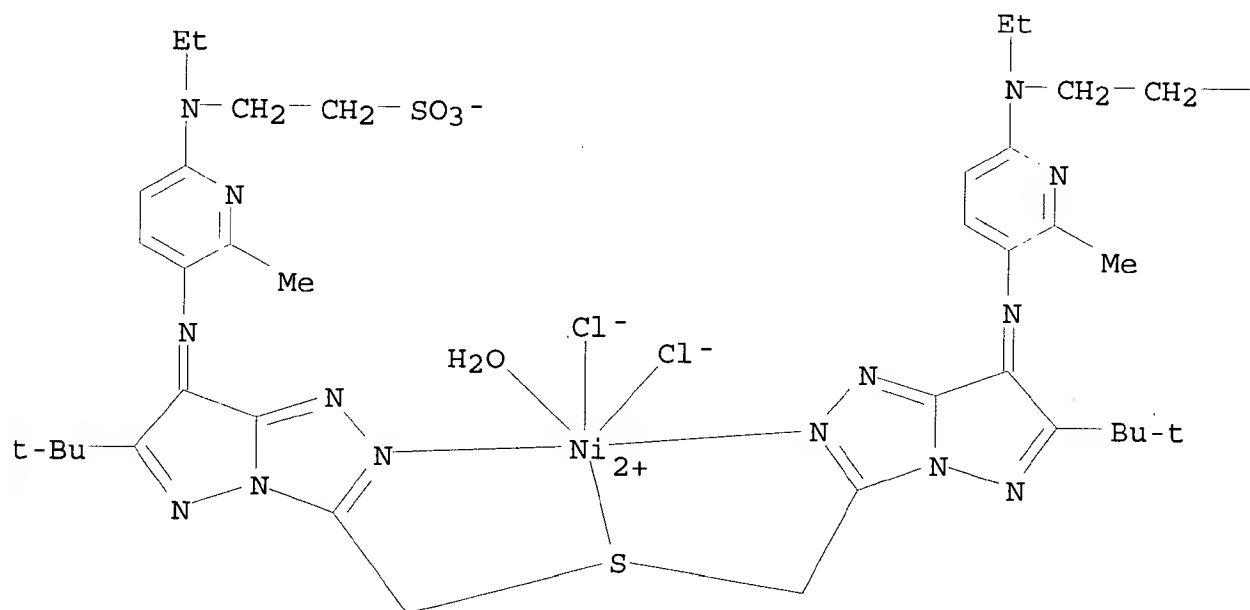
PAGE 2-A

• 2 Na⁺

RN 203734-75-2 HCA
 CN Nickelate(2-), aquadichloro[[2,2'-[(thio-.kappa.S)bis[methylene[6-

(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl-7-ylidene-
 .kappa.N2]nitrilo(6-methyl-5,2-pyridinediyl)(ethylimino)]bis[ethane
 sulfonato]](2-)]-, disodium (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

— SO₃⁻● 2 Na⁺

IT 203734-37-6 203734-38-7 203734-39-8
 203734-40-1 203734-41-2 203734-42-3
 203734-43-4 203734-44-5 203734-46-7
 203734-47-8 203734-48-9 203734-49-0
 203734-50-3 203734-51-4 203734-52-5
 203734-53-6 203734-56-9 203734-57-0
 203734-58-1 203734-59-2 203734-60-5

203734-61-6 203734-62-7 203734-63-8
 203734-64-9 203734-65-0 203734-70-7
 203734-71-8 203734-73-0 203734-74-1
 203734-75-2

(ink-jet inks for lightfast magenta
 images with good color reproducibility)

L13 ANSWER 9 OF 11 HCA COPYRIGHT 2002 ACS

127:360072 Ink compositions and ink-jet recording

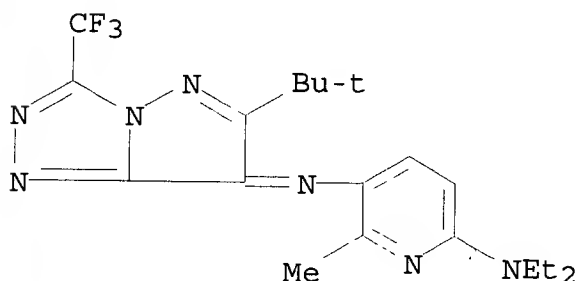
using the same with improved image lightfastness and storability.
 Morimoto, Hitoshi; Oya, Hidenobu; Onodera, Akira; Ishibashi,
 Daisuke; Ninomya, Hidetaka (Konica Co., Japan). Jpn. Kokai Tokkyo
 Koho JP 09272830 A2 19971021 Heisei, 39 pp. (Japanese). CODEN:
 JKXXAF. APPLICATION: JP 1996-85155 19960408.

AB The title compns. contain colorants and (R1NHNR2R3)nMm or
 [R4NHNR5C(:X)R6]nMm (R1, R2 = H, alkyl, alkoxy, arom. group,
 heterocyclic group; R3 = H, alkyl, alkoxy, amidino, arom. group,
 heterocyclic group, sulfonyl; R4 = H, alkyl, alkoxy, arom. group,
 heterocyclic group, carbonyl; R5 = H, alkyl, alkoxy, amino, arom.
 group, heterocyclic group, carbonyl; R6 = alkyl, alkoxy, amino,
 arom. group, heterocyclic group, carbonyl; X = O, S; R2R3, R4R6,
 R5R6 = ring member; n = 1-3; m = 0-2; M = salt group), e.g.,
 [NH2NHC(:NH)NH2]2.H2SO4.

IT 162207-97-8 189686-82-6
 (magenta dye; ink compns. and ink-jet
 recording using the same with improved image lightfastness and
 storability)

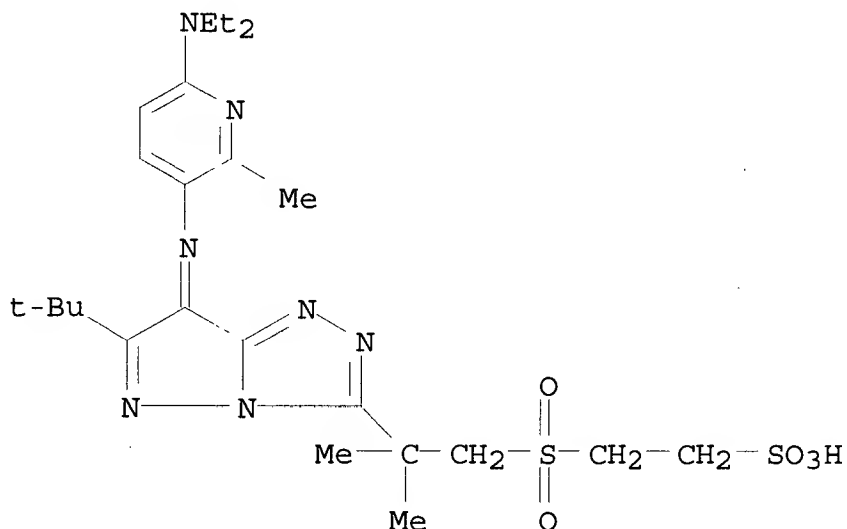
RN 162207-97-8 HCA

CN 2,5-Pyridinediamine, N5-[6-(1,1-dimethylethyl)-3-(trifluoromethyl)-
 7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N2,N2-diethyl-6-methyl-
 (9CI) (CA INDEX NAME)



RN 189686-82-6 HCA

CN Ethanesulfonic acid, 2-[[2-[7-[[6-(diethylamino)-2-methyl-3-
 pyridinyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-
 triazol-3-yl]-2-methylpropyl]sulfonyl]-, sodium salt (9CI) (CA
 INDEX NAME)



• Na

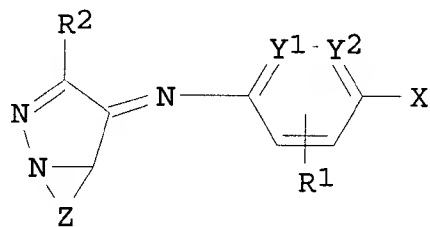
IT 162207-97-8 189686-82-6

(magenta dye; ink compns. and **ink-jet**
recording using the same with improved image lightfastness and
storability)

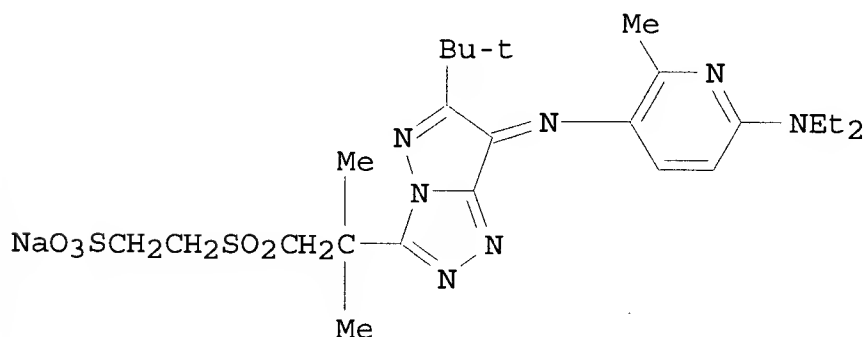
L13 ANSWER 10 OF 11 HCA COPYRIGHT 2002 ACS

126:344493 Azomethine dyes and their use in **ink-jet**
recording **inks**. Onodera, Akira; Ninomiya, Hidetaka; Ohya,
Hidenobu; Ishibashi, Daisuke; Komamura, Tawara; Katoh, Katsunori;
Tanaka, Tatsuo; Morimoto, Hitoshi (Konica Corporation, Japan). Eur.
Pat. Appl. EP 769531 A1 19970423, 55 pp. DESIGNATED STATES: R: DE,
FR, GB. (English). CODEN: EPXXDW. APPLICATION: EP 1996-307514
19961016. PRIORITY: JP 1995-267082 19951016; JP 1996-72287
19960327.

GI



I



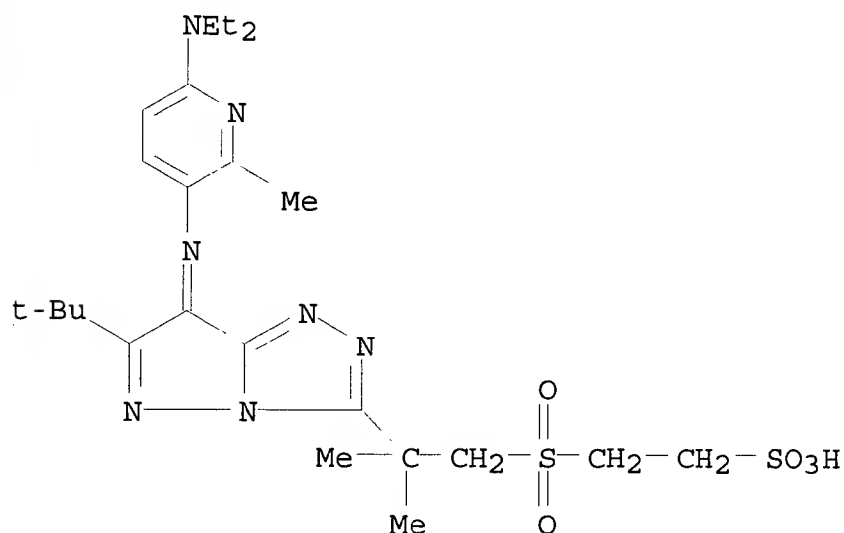
II

AB A recording method comprises the step of ejecting an **ink-jet** recording **ink** on a receptor using an **ink-jet printer**, the **ink** comprising a dye represented by the formula I [R1, R2 = H, halogen, NH2, org. group; X = OH, NR3R4; R3, R4 = H, hydrocarbyl, heterocyclyl, or R1R3 or R3R4 form a ring; Y1, Y2 = N, CR; R = H, alkyl, acylamino; Y1 or Y2 = N; Z completes an (un)substituted 5- or 6-membered ring, which may bear another condensed ring; R2 or a substituent on Z has Hammett .sigma.p -0.3 to +1.0]. Thus, II was prepd. in a 9-step synthesis from 6-methyl-2-pyridinamine and 5-tert-butyl-2-hydrazino-6H-1,3,4-thiadiazine. An ink with good color tone and storage stability was prepd. from a I 3, H(OCH2CH2)2OH 10, Bu(OCH2CH2)3OH 7, PrOH 3, and H2O 77%.

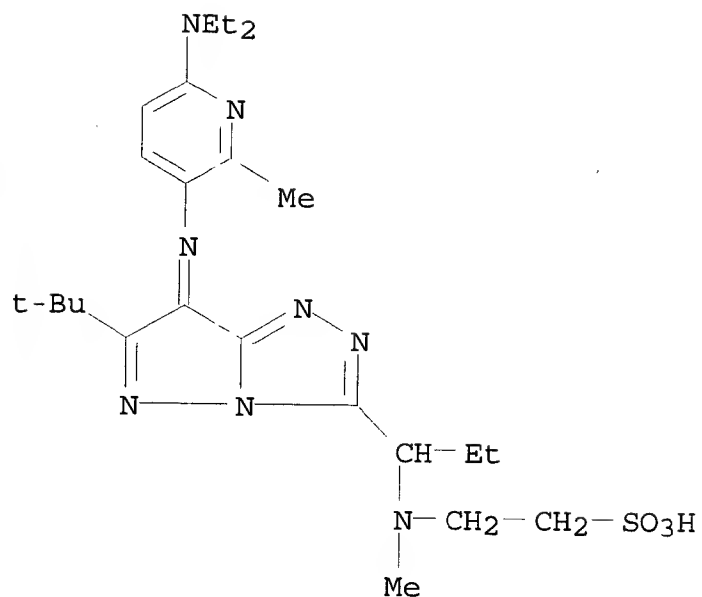
IT 189686-82-6P 189686-83-7P 189686-84-8P
189686-85-9P 189686-86-0P 189686-87-1P
189686-88-2P

(azomethine dyes for use in **ink-jet** recording **inks**)

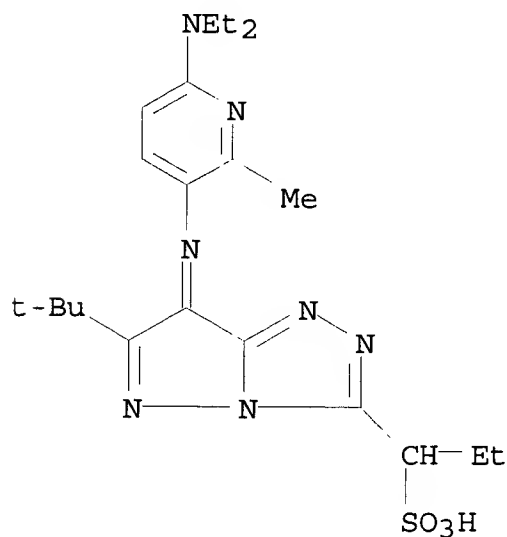
RN 189686-82-6 HCA
CN Ethanesulfonic acid, 2-[[2-[7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-2-methylpropyl]sulfonyl]-, sodium salt (9CI) (CA INDEX NAME)



RN 189686-83-7 HCA
 CN Ethanesulfonic acid, 2-[[1-[7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]propyl]methylamino]-, sodium salt (9CI) (CA INDEX NAME)

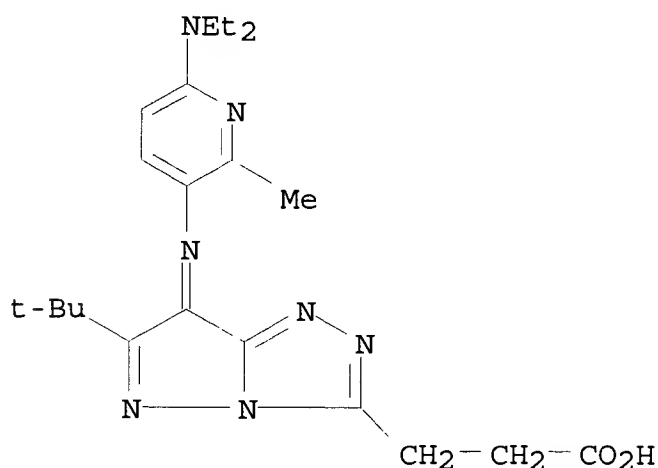


RN 189686-84-8 HCA
 CN 7H-Pyrazolo[5,1-c]-1,2,4-triazole-3-methanesulfonic acid,
 7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-(1,1-
 dimethylethyl)-.alpha.-ethyl-, sodium salt (9CI) (CA INDEX NAME)

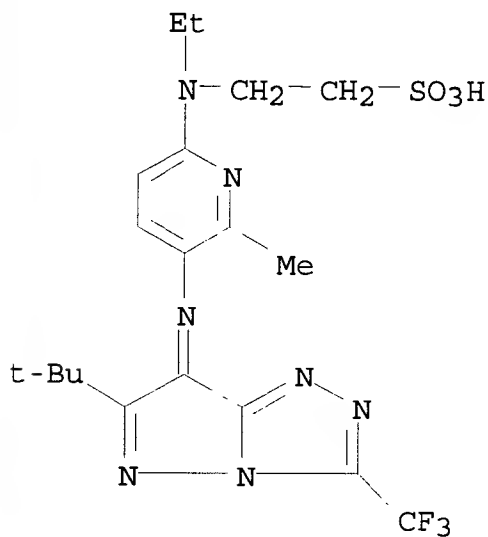


• Na

RN 189686-85-9 HCA
 CN 7H-Pyrazolo[5,1-c]-1,2,4-triazole-3-propanoic acid,
 7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-(1,1-
 dimethylethyl)-(9CI) (CA INDEX NAME)

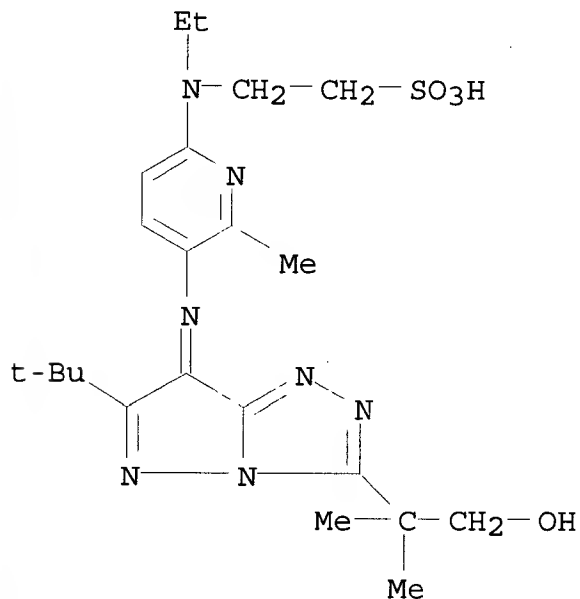


RN 189686-86-0 HCA
 CN Ethanesulfonic acid, 2-[[5-[[6-(1,1-dimethylethyl)-3-(
 trifluoromethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-
 6-methyl-2-pyridinyl]ethylamino]-, sodium salt (9CI) (CA INDEX
 NAME)

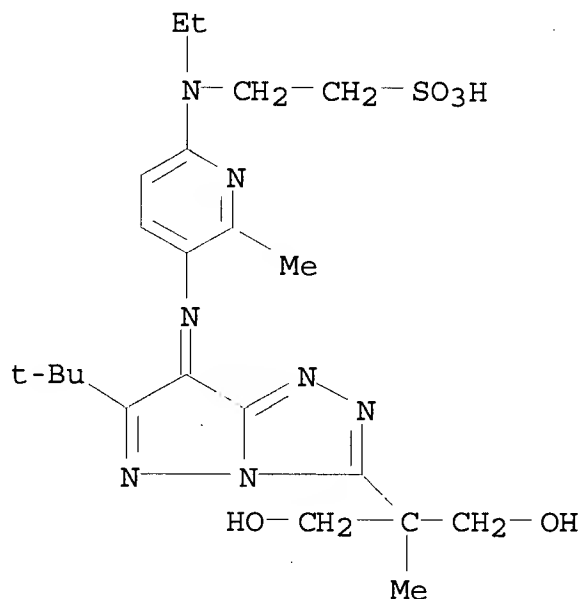


• Na

RN 189686-87-1 HCA
 CN Ethanesulfonic acid, 2-[[5-[[6-(1,1-dimethylethyl)-3-(2-hydroxy-1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-6-methyl-2-pyridinyl]ethylamino]-, monosodium salt (9CI) (CA INDEX NAME)



RN 189686-88-2 HCA
 CN Ethanesulfonic acid, 2-[[5-[[6-(1,1-dimethylethyl)-3-[2-hydroxy-1-(hydroxymethyl)-1-methylethyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-6-methyl-2-pyridinyl]ethylamino]-, monosodium salt (9CI) (CA INDEX NAME)



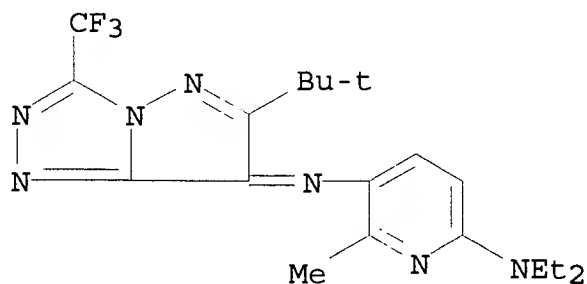
• Na

IT 162207-97-8 162207-98-9 162208-00-6
 162208-01-7 189686-98-4 189686-99-5
 189687-00-1 189687-01-2 189687-02-3
 189687-03-4 189687-04-5 189687-05-6
 189687-06-7 189687-07-8 189687-08-9
 189687-09-0 189687-10-3 189687-11-4
 189687-12-5

(azomethine dyes for use in ink-jet recording
 inks)

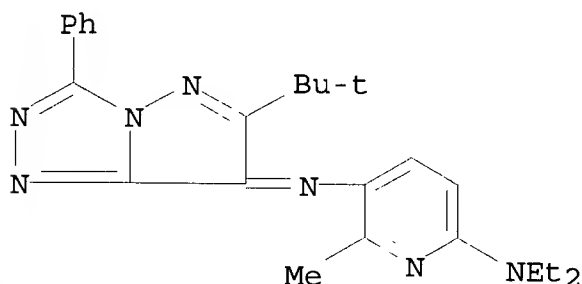
RN 162207-97-8 HCA

CN 2,5-Pyridinediamine, N5-[6-(1,1-dimethylethyl)-3-(trifluoromethyl)-
 7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N2,N2-diethyl-6-methyl-
 (9CI) (CA INDEX NAME)

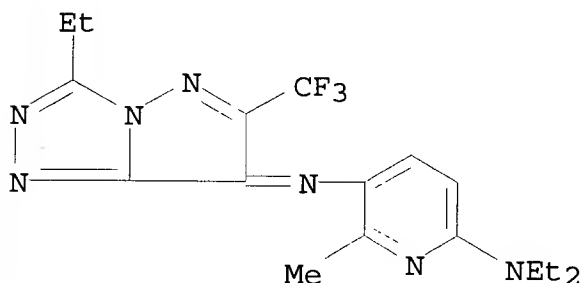


RN 162207-98-9 HCA

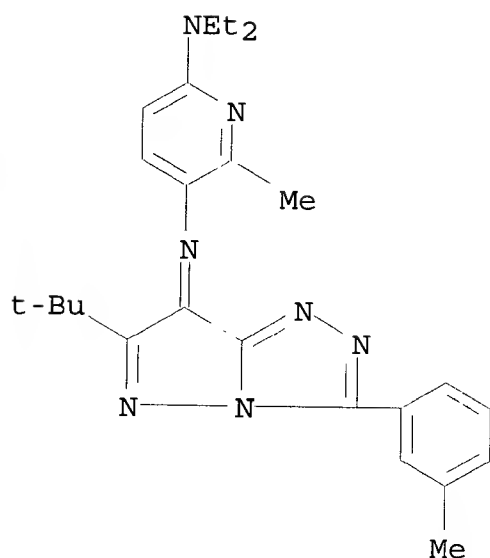
CN 2,5-Pyridinediamine, N5-[6-(1,1-dimethylethyl)-3-phenyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N2,N2-diethyl-6-methyl- (9CI) (CA INDEX NAME)



RN 162208-00-6 HCA
CN 2,5-Pyridinediamine, N2,N2-diethyl-N5-[3-ethyl-6-(trifluoromethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-6-methyl- (9CI) (CA INDEX NAME)

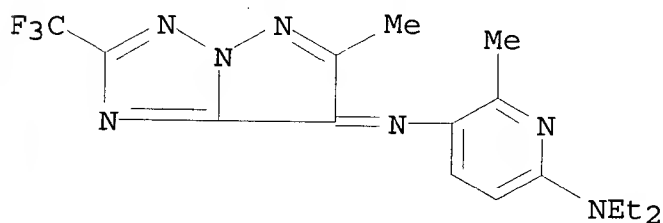


RN 162208-01-7 HCA
CN 2,5-Pyridinediamine, N5-[6-(1,1-dimethylethyl)-3-(3-methylphenyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N2,N2-diethyl-6-methyl- (9CI) (CA INDEX NAME)



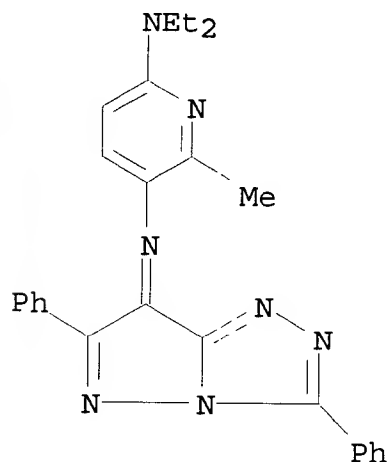
RN 189686-98-4 HCA

CN 2,5-Pyridinediamine, N2,N2-diethyl-6-methyl-N5-[6-methyl-2-(trifluoromethyl)-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene] - (9CI)
(CA INDEX NAME)

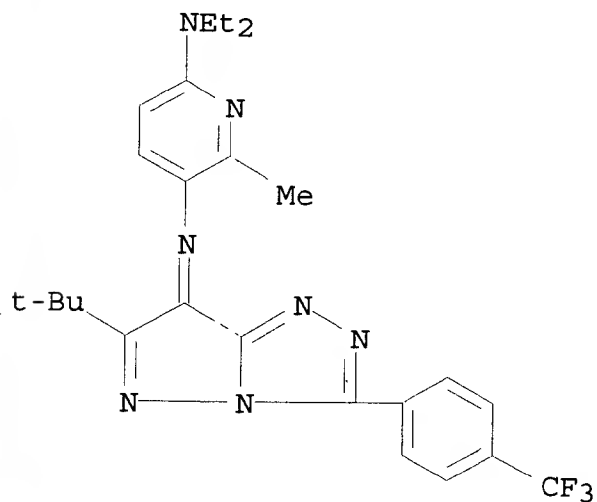


RN 189686-99-5 HCA

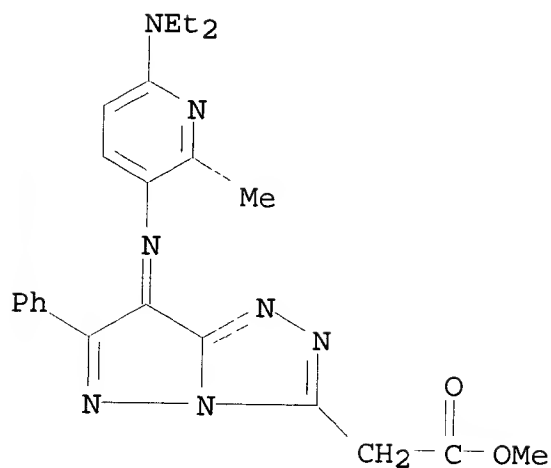
CN 2,5-Pyridinediamine, N5-(3,6-diphenyl-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene)-N2,N2-diethyl-6-methyl- (9CI) (CA INDEX NAME)



RN 189687-00-1 HCA
 CN 2,5-Pyridinediamine, N5-[6-(1,1-dimethylethyl)-3-[4-(trifluoromethyl)phenyl]-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N2,N2-diethyl-6-methyl- (9CI) (CA INDEX NAME)

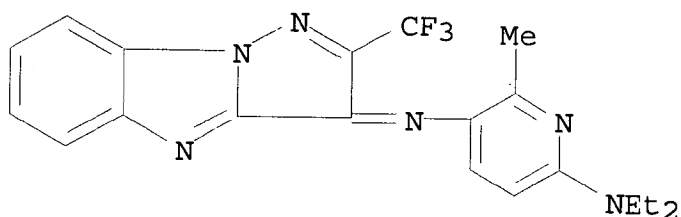


RN 189687-01-2 HCA
 CN 7H-Pyrazolo[5,1-c]-1,2,4-triazole-3-acetic acid, 7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-phenyl-, methyl ester (9CI) (CA INDEX NAME)



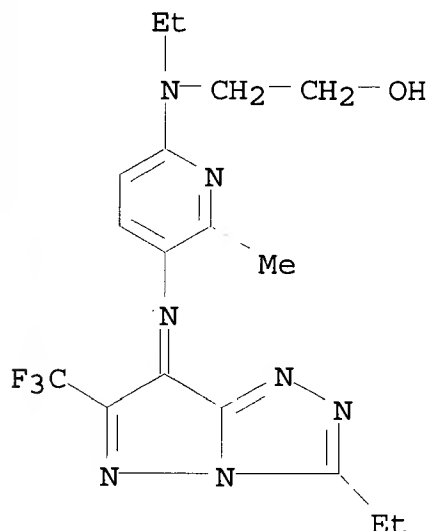
RN 189687-02-3 HCA

CN 2,5-Pyridinediamine, N2,N2-diethyl-6-methyl-N5-[2-(trifluoromethyl)-3H-pyrazolo[1,5-a]benzimidazol-3-ylidene] - (9CI) (CA INDEX NAME)



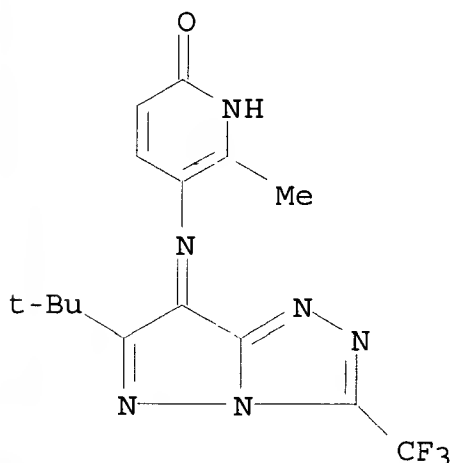
RN 189687-03-4 HCA

CN Ethanol, 2-[ethyl[5-[[3-ethyl-6-(trifluoromethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-6-methyl-2-pyridinyl]amino] - (9CI) (CA INDEX NAME)



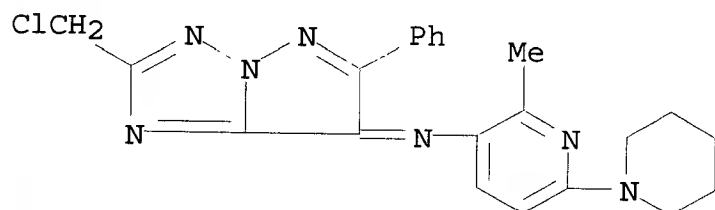
RN 189687-04-5 HCA

CN 2(1H)-Pyridinone, 5-[6-(1,1-dimethylethyl)-3-(trifluoromethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]amino]-6-methyl- (9CI) (CA INDEX NAME)

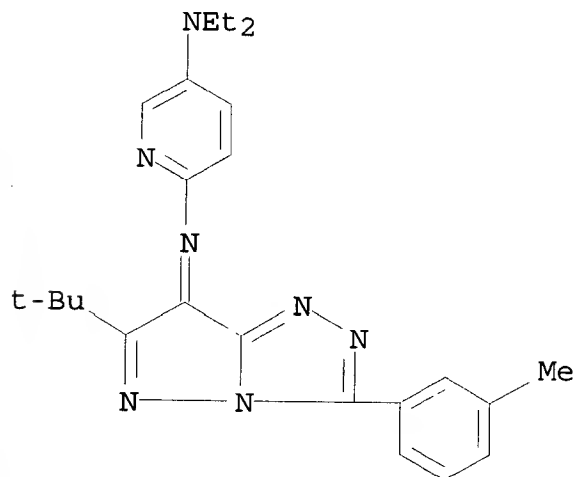


RN 189687-05-6 HCA

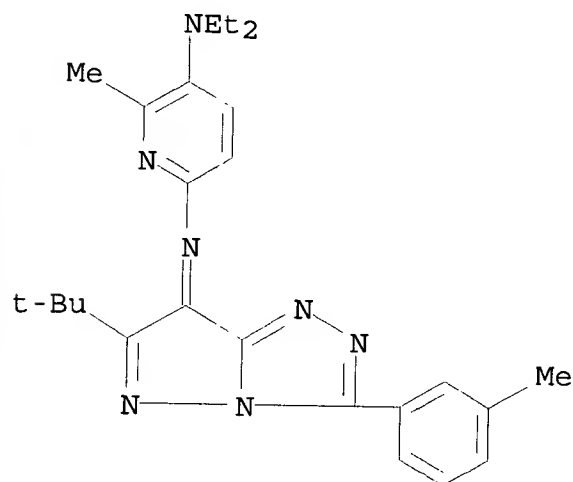
CN 3-Pyridinamine, N-[2-(chloromethyl)-6-phenyl-7H-pyrazolo[1,5-b][1,2,4]triazol-7-ylidene]-2-methyl-6-(1-piperidinyl)- (9CI) (CA INDEX NAME)



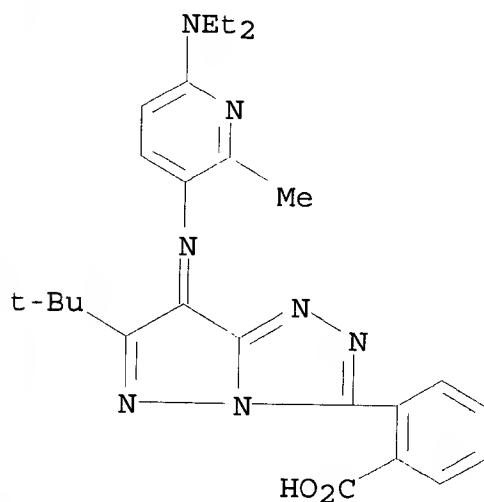
RN 189687-06-7 HCA
 CN 2,5-Pyridinediamine, N2-[6-(1,1-dimethylethyl)-3-(3-methylphenyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N5,N5-diethyl- (9CI) (CA INDEX NAME)



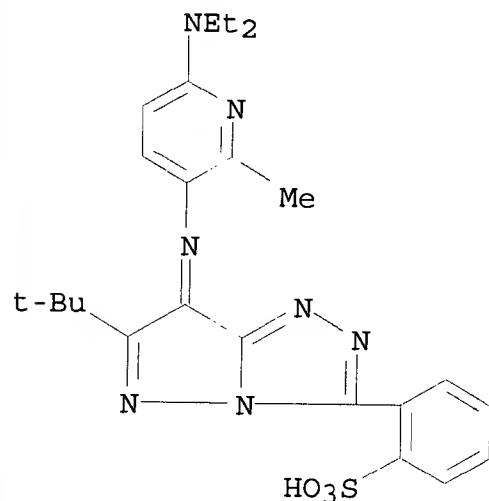
RN 189687-07-8 HCA
 CN 2,5-Pyridinediamine, N2-[6-(1,1-dimethylethyl)-3-(3-methylphenyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-7-ylidene]-N5,N5-diethyl-6-methyl- (9CI) (CA INDEX NAME)



RN 189687-08-9 HCA
 CN Benzoic acid, 2-[7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]- (9CI)
 (CA INDEX NAME)

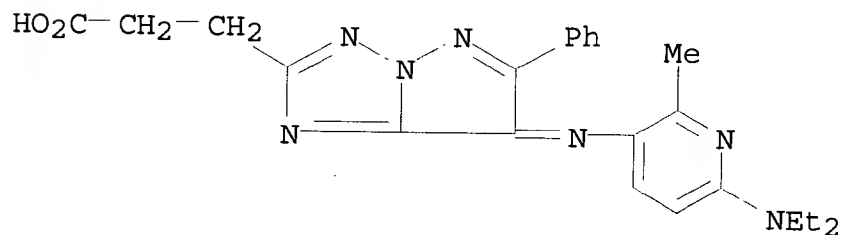


RN 189687-09-0 HCA
 CN Benzenesulfonic acid, 2-[7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]-, sodium salt (9CI) (CA INDEX NAME)

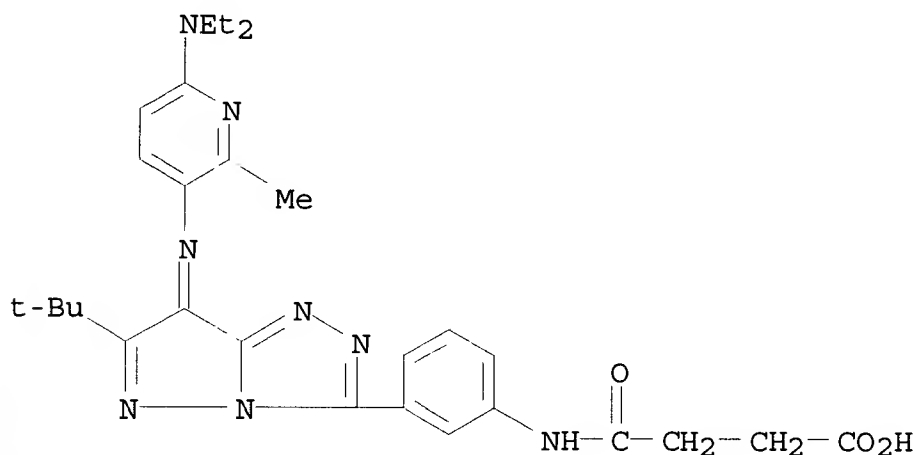


• Na

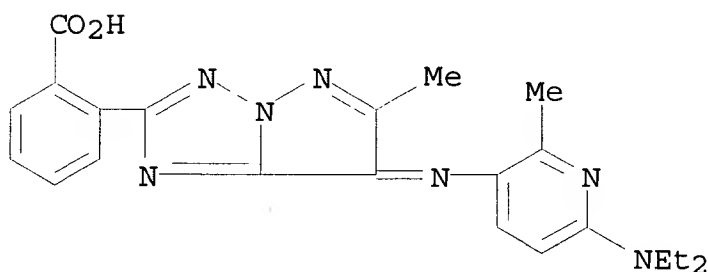
RN 189687-10-3 HCA
 CN 7H-Pyrazolo[1,5-b][1,2,4]triazole-2-propanoic acid,
 7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-phenyl- (9CI)
 (CA INDEX NAME)



RN 189687-11-4 HCA
 CN Butanoic acid, 4-[[3-[7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-(1,1-dimethylethyl)-7H-pyrazolo[5,1-c]-1,2,4-triazol-3-yl]phenyl]amino]-4-oxo- (9CI) (CA INDEX NAME)



RN 189687-12-5 HCA
 CN Benzoic acid, 2-[7-[[6-(diethylamino)-2-methyl-3-pyridinyl]imino]-6-methyl-7H-pyrazolo[1,5-b][1,2,4]triazol-2-yl]- (9CI) (CA INDEX NAME)

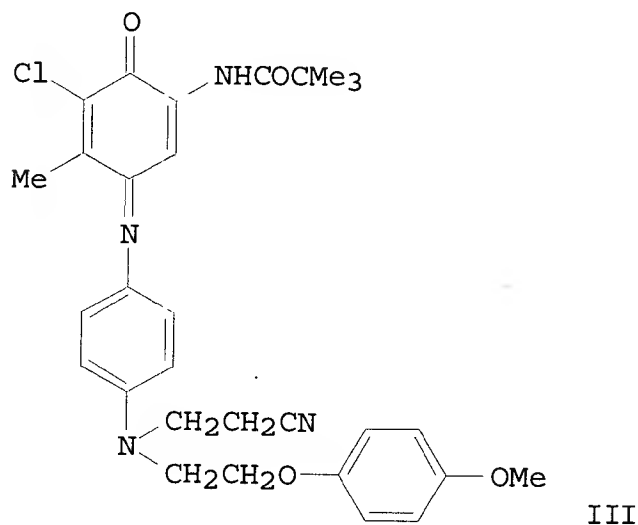
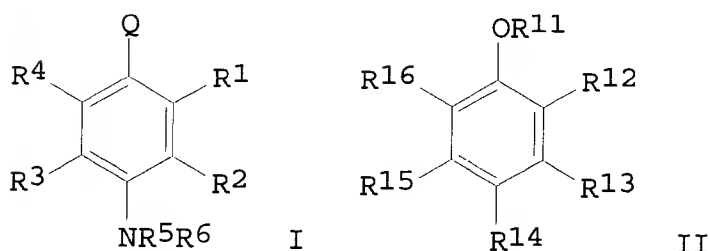


IT 189686-82-6P 189686-83-7P 189686-84-8P
 189686-85-9P 189686-86-0P 189686-87-1P
 189686-88-2P
 (azomethine dyes for use in ink-jet recording inks)
 IT 162207-97-8 162207-98-9 162208-00-6
 162208-01-7 189686-98-4 189686-99-5
 189687-00-1 189687-01-2 189687-02-3
 189687-03-4 189687-04-5 189687-05-6
 189687-06-7 189687-07-8 189687-08-9
 189687-09-0 189687-10-3 189687-11-4
 189687-12-5
 (azomethine dyes for use in ink-jet recording inks)

L13 ANSWER 11 OF 11 HCA COPYRIGHT 2002 ACS
 118:82830 Fading-resistant azomethine dyes for imaging and filters.
 Mikoshiba, Takashi; Tanaka, Mitsugi; Morigaki, Masakazu; Kubodera,
 Seiichi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho

JP 04239061 A2 19920826 Heisei, 45 pp. (Japanese). CODEN: JKXXAF.
APPLICATION: JP 1991-12470 19910110.

GI



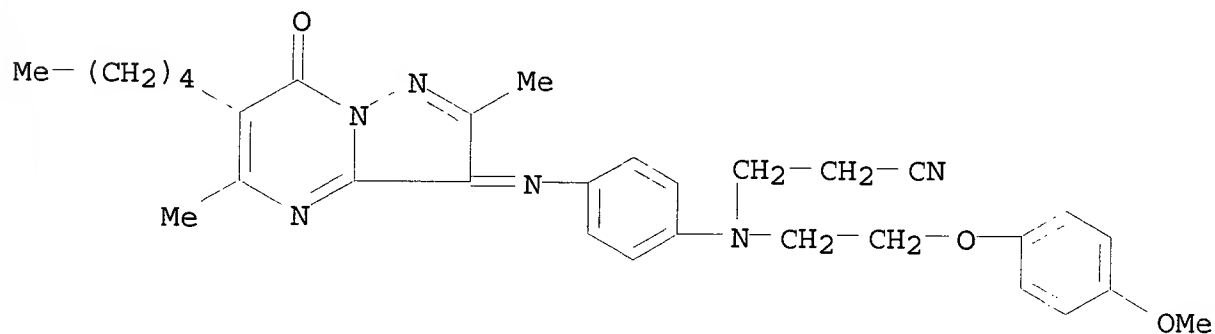
AB The dyes have the general formula I, where Q = group absorbing in the visible and/or near IR region; R¹-R⁶ = H, nonmetallic substituents, .gtoreq.1 of which is bonded to II; R¹¹ = nonmetallic substituent; R¹²-R¹⁶ = H, nonmetallic substituent, with R¹² and/or R¹⁴ being an alkoxy or amino group, and are esp. useful as filter materials for liq.-crystal color television displays. III, .lambda.max 603 nm, was prepd. in 55.4% yield starting from 2,3,5,4-HOCl₂MeC₆H₄NHCOCMe₃ and p-H₂NC₆H₄N(CH₂CH₂CN)CH₂CH₂OC₆H₄OMe-p.2TsOH.

IT 136640-31-8P

(dye, fading-resistant, for imaging and optical filters, manuf. of)

RN 136640-31-8 HCA

CN Propanenitrile, 3-[[4-[(2,5-dimethyl-7-oxo-6-pentylpyrazolo[1,5-a]pyrimidin-3(7H)-ylidene)amino]phenyl][2-(4-methoxyphenoxy)ethyl]amino] - (9CI) (CA INDEX NAME)



(dye, fading-resistant, for imaging and optical filters, manuf. of)